



City of Woodland

Meeting Agenda

City Council

City Hall
Council Chambers
300 First Street
Woodland, CA 95695

November 20, 2018
6:00 PM

CITY COUNCIL

CLOSED SESSION

5:30 PM

A. CALL TO ORDER

B. CLOSED SESSION

1. CONFERENCE WITH REAL PROPERTY NEGOTIATORS - Pursuant to Government Code Section 54956.8

Properties: Yolo County Assessor's Parcel Numbers 027-360-010-000

Agency Negotiators: City Manager, Assistant City Manager/Community Development Director and Deputy Community Development Director

Negotiating Parties: Friends of the Mission, Non-Profit Organization 501(c)(3)

Under Negotiation: Price and terms of payment

JOINT REGULAR CITY COUNCIL/WOODLAND FINANCE AUTHORITY MEETING

6:00 PM

C. CALL TO ORDER

D. ROLL CALL

E. PLEDGE OF ALLEGIANCE

F. COMMUNICATIONS - PUBLIC COMMENT

This is an opportunity for the public to speak to the Council on any item other than those listed for public hearing on this agenda. Speakers are requested to use the microphone in front of the Council and to begin by stating their name, whether they reside in Woodland and the name of the organization they represent if any. The Mayor may impose a time limit on any speaker depending on the number of people wanting to speak and time available for the rest of the agenda. In the event comments are related to an item scheduled on the agenda, speakers may be required to wait to make their comments until that item is considered.

G. COMMUNICATIONS - COUNCIL/STAFF STATEMENTS AND REQUESTS

This is an opportunity for the Council Members and Staff to make comments and announcements, to express concerns, or to request Council's consideration of any items a Council Member would like to have discussed at a future Council meeting.

2. SUBJECT: Long Range Calendar

RECOMMENDATION FOR ACTION: Staff recommends that the City Council receive the Long Range Calendar for informational purposes only.

H. PRESENTATIONS

3. SUBJECT: Youth Empowerment Summit Presentation

RECOMMENDATION FOR ACTION: Staff recommends that the City Council receive a presentation from Jesse Salinas, Yolo County Clerk/Recorder, Assessor, regarding the Youth Empowerment Summit.

I. CONSENT CALENDAR

4. SUBJECT: Fire Department Quarterly Status Report for the Period of July 2018-September 2018

RECOMMENDATION FOR ACTION: Staff recommends that the City Council accept the Fire Department Quarterly Status Report for July 2018 through September 2018.

5. SUBJECT: Police Department Quarterly Status Report for the period of July 2018 through September 2018

RECOMMENDATION FOR ACTION: Staff recommends that the City Council accept the Police Department Quarterly Status Report for July 2018 through September 2018.

6. SUBJECT: Household Hazardous Waste Grant Fund Creation and Budget Appropriation

RECOMMENDATION FOR ACTION: Staff recommends that the City Council adopt Resolution No. _____, authorizing the creation of the Household Hazardous Waste Grant Fund and appropriation of funds to the fiscal year 2018/19 Household Hazardous Waste Grant budget.

7. SUBJECT: Authorize the Purchase of Four Police Chevy Impala Undercover Vehicles

RECOMMENDATION FOR ACTION: Staff recommends that the City Council approve Resolution No. _____, authorizing the purchase award of four replacement Police Chevy Impala undercover vehicles from Winner Chevrolet in the amount of \$111,491.00

8. SUBJECT: Spring Lake Maintenance CFD Annual Accountability Report

RECOMMENDATION FOR ACTION: Staff recommends that the City Council accept the Spring Lake Maintenance Community Facilities District Local Agency Special Tax and Bond Accountability Report for the Fiscal Year Ended June 30, 2018

9. SUBJECT: Approval of Final Map 5141, Downtown Suites, and Related Subdivision Improvement Agreement

RECOMMENDATION FOR ACTION: Staff recommends that the City Council adopt Resolution No. _____, a Resolution of the City Council 1) approving Final Map 5141 SZ Downtown Partners; 2) approving the related Subdivision Improvement Agreement and authorizing the City Manager to sign on behalf of the City; and 3) authorizing the City Manager to approve amendments to the Subdivision Improvement Agreement for the extension of time.

10. SUBJECT: Second Reading of Ordinance No. 1640, Proposing Amendments to Development Impact fee Deferral Ordinance

RECOMMENDATION FOR ACTION: Staff recommends that the City Council adopt Ordinance No. 1640, approving the Amendment of SECTIONS 6B-030, 6B-040, 6B-050, 6B-060(b), 6B-080 and 6B-090 of the Woodland Municipal Code relating to the deferral of certain Development Impact Fees

11. SUBJECT: Changes to the Salary Schedule

RECOMMENDATION FOR ACTION: Staff recommends that the City Council approve the changes to City of Woodland Salary Schedule effective November 1, 2018 and approve the deletion of several Management Job Descriptions.

J. PUBLIC HEARINGS

12. PUBLIC HEARING - OPEN AND CONTINUE - Agricultural Mitigation Ordinance

THIS ITEM WILL BE OPENED AND CONTINUED TO DATE UNCERTAIN.

K. REPORTS OF THE CITY MANAGER

13. SUBJECT: Adoption of the Yolo County Operational Area Multi-jurisdictional Hazard Mitigation Plan Update

RECOMMENDATION FOR ACTION: Staff recommends that the City Council adopt Resolution No. _____, approving the updated Yolo County Operational Area Multi-jurisdictional Hazard Mitigation Plan and adopting it into the Safety Element of the City of Woodland General Plan.

14. SUBJECT: Update on Permanent Supportive Housing Project for Submission under the State's No Place Like Home Grant Program, and Approval of Memorandum of Understanding with Partnership HealthPlan of California for Local Innovation Grant on Housing in the Amount of \$679,972

RECOMMENDATION FOR ACTION: Staff recommends that the City Council:

1) receive an update on development of a new permanent supportive housing project concept for submission under the State's No Place Like Home Grant Program, and

2) adopt Resolution No. _____, approving a Memorandum of Understanding with Partnership HealthPlan of California (PHC) for a Local Innovation Grant on Housing in the amount of \$679,972; amending the FY19 budget as necessary in order to appropriate the \$679,972 grant award; and authorizing the City Manager to execute any and all documents needed for the City to implement the project.

15. SUBJECT: Approve the Sale and Related Documents for the Spring Lake CFD 2004-1, Special Tax Bonds Series 2019.

RECOMMENDATION FOR ACTION: Staff Recommends that the City Council adopt Resolution No. ____ Confirming Previous Actions for the Issuance of the Special Tax Bonds for Community Facilities District No. 2004-1 (Spring Lake), Approving a Revised Form of the Official Statement Relating to the Bonds, and Approving Certain Other Actions Related Thereto.

L. ADJOURN

I declare under penalty of perjury that the foregoing Agenda for the Joint Regular City Council/Woodland Finance Authority Meeting of the City of Woodland scheduled for November 20, 2018 was posted on November 16, 2018 in the outside display case at City Hall, 300 First Street, Woodland, CA, and was available to the public during normal business hours.


Ana B. Gonzalez
City Clerk

Upon request, agendas and documents in the agenda packet will be made available in appropriate alternative formats to persons with a disability, as required by law. Any such requests must be made in writing to the Office of the City Clerk of the City of Woodland. Requests will be valid for the calendar year in which the request is received, and must be renewed prior to January 1st.

Persons needing disability-related modifications or accommodations in order to participate in public meetings, including persons requiring auxiliary aids or services, may request such modifications or accommodations by calling the Office of the City Clerk (530-661-5806) at least 48 hours prior to the meeting.



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: G.2.
SUBJECT: Long Range Calendar

Recommendation for Action:

Staff recommends that the City Council receive the Long Range Calendar for informational purposes only.

Staff Contact:

Ana B. Gonzalez, City Clerk, (530) 661-5806, ana.gonzalez@cityofwoodland.org

Background:

This calendar is being provided for planning purposes only and is intended to keep the Council apprised of upcoming agenda items and better plan for upcoming Council items.



Paul Navazio
City Manager

Attachments:

1. Council Long Range Calendar

UPDATED COUNCIL LONG RANGE CALENDAR

DECEMBER 4TH

REGULAR MEETING

Minutes

City Council Meeting Minutes of November 6th and November 20th 2018

Consent Calendar

Accept Sewer System Management Plan Audit for FY17 and FY18

Final Acceptance and NOC for WPCF Pond #7 Biosolids Removal Project, CIP 18-06

GST Capital Partmnets, LLC Cell Tower Agreement

Reports of the City Manager

Certification of Election Results

Council Reorganization

- Swearing-In of New Council Members
- Mayor and Mayor Pro Tempore

DECEMBER 18TH

REGULAR MEETING

Council Appointments/Assignments

2019 Council Meeting Calendar

Urban Forestry / Master Plan Tree Update

Tree Preservation Ordinance Update

NeighborhooT Traffic Calming Program Update

JANUARY 15TH

REGULAR MEETING

No Place Like Home Grant Application

Ag Mitigation Ordinance

Future Topics / Study Sessions:

City Council Goals

Adopt Conflict of Interest Code

City Code Clean-up Ordinance

Non-Conforming Use Zoning Update



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: H.3.
SUBJECT: Youth Empowerment Summit Presentation

Recommendation for Action: Staff recommends that the City Council receive a presentation from Jesse Salinas, Yolo County Clerk/Recorder, Assessor, regarding the Youth Empowerment Summit.


Paul Navazio
City Manager

Attachments:

None



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: I.4.
SUBJECT: Fire Department Quarterly Status Report for the Period of July 2018-September 2018

Recommendation for Action: Staff recommends that the City Council accept the Fire Department Quarterly Status Report for July 2018 through September 2018.

Staff Contact:

Rebecca Ramirez, Fire Chief - 661-5861, becky.ramirez@cityofwoodland.org

Background:

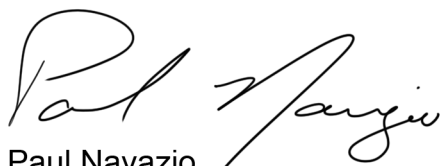
The Fire Department Quarterly Status Report includes a summary of all activity within the Department. In lieu of providing comprehensive monthly status reports to the City Council and department heads via e-mail communication, the City Council now receives status reports on a quarterly basis via agenda packet.

Conclusion:

Staff recommends that the City Council accept the Fire Department Quarterly Status Report for July 2018 through September 2018.

Prepared by: Jeran Ulrich, Management Analyst

Reviewed by: Rebecca Ramirez, Fire Chief


Paul Navazio
City Manager

Attachments:

1. Fire Department Quarterly Report Jul-Sep 18



WOODLAND FIRE DEPARTMENT

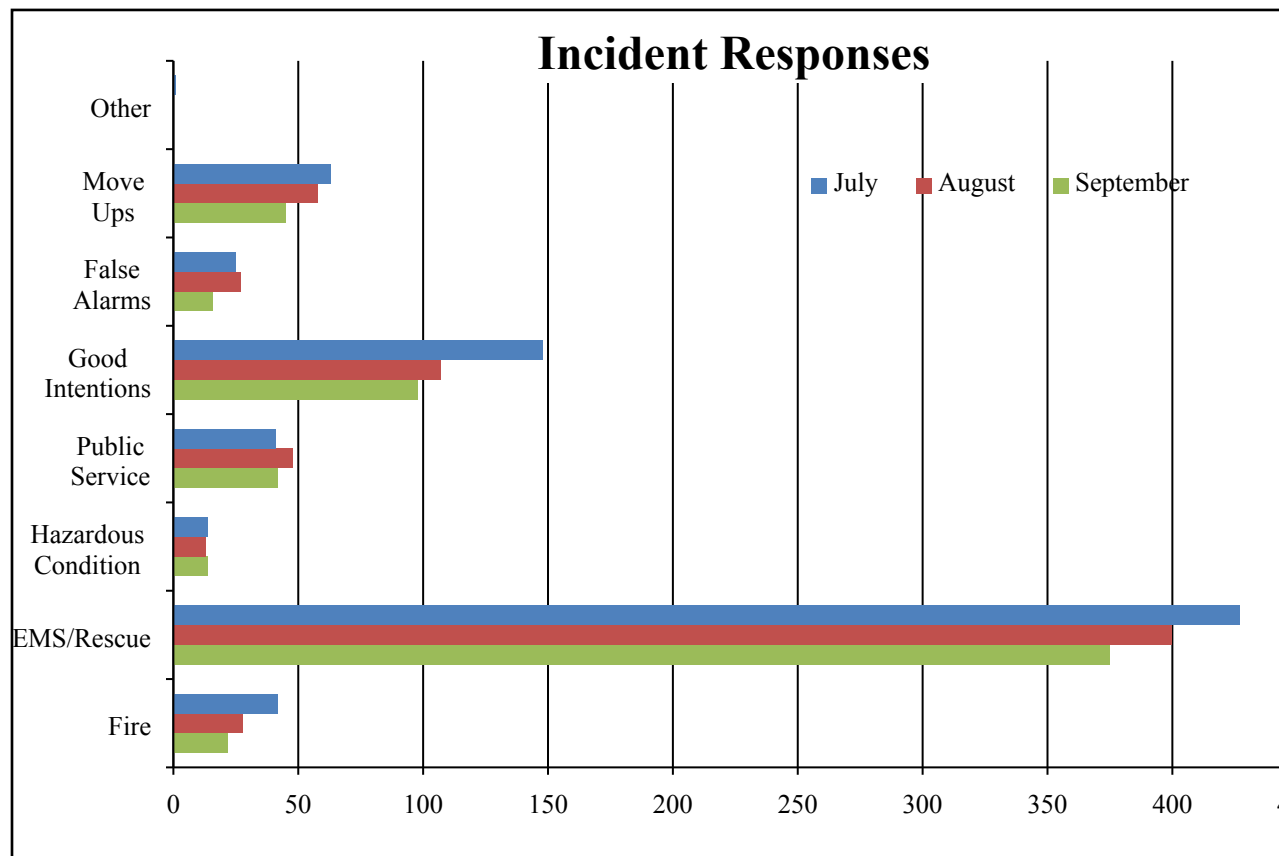
Quarterly Report

DATE: November 20, 2018

SUBJECT: QUARTERLY REPORT FOR JULY-SEPTEMBER 2018

The Quarterly Status Report includes a wide variety of information in an effort to better inform the public and the City Council.

Total Incident Responses	July	August	September
Fire	42	28	22
EMS/Rescue	427	400	375
Hazardous Condition	14	13	14
Public Service	41	48	42
Good Intentions	148	107	98
False Alarms	25	27	16
Move Up*	63	58	45
Other	1	0	0
TOTAL	761	681	612



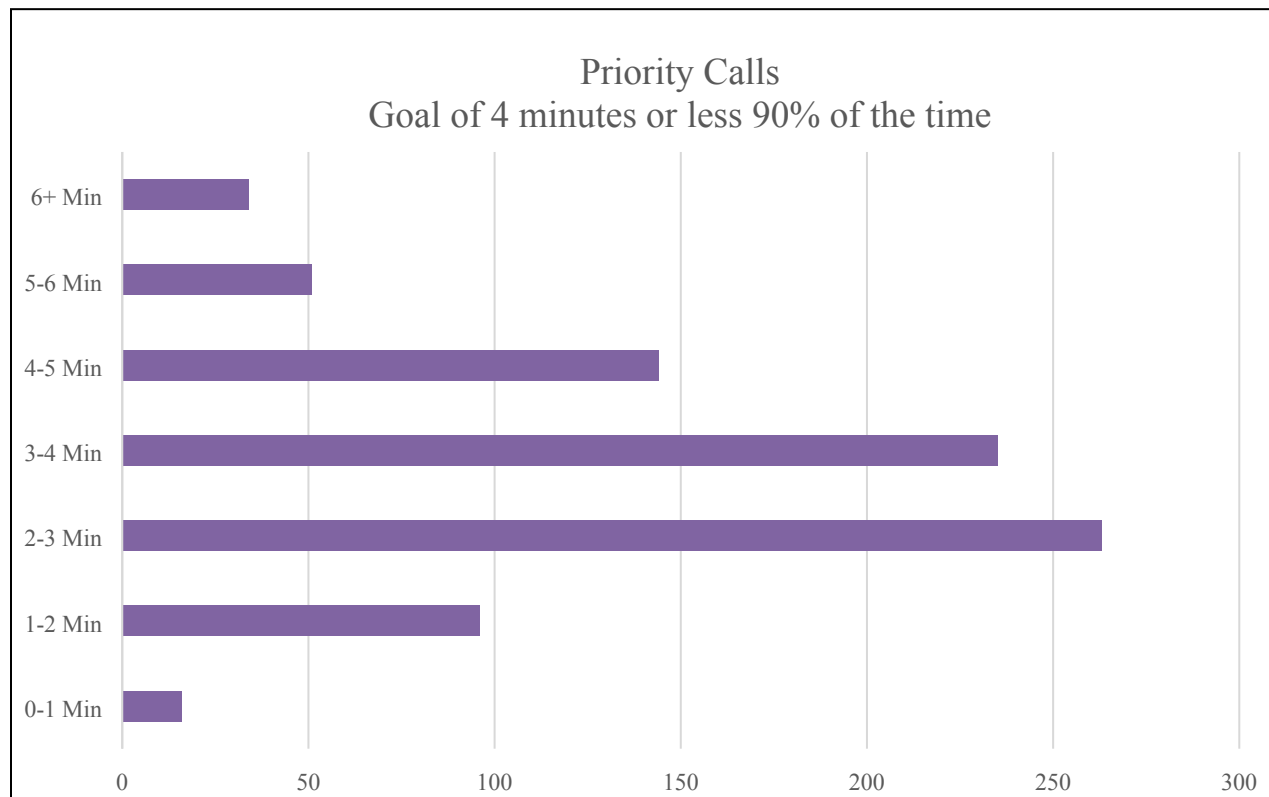
*When two or three (dependent on area) engine/truck companies are committed to calls simultaneously, the remaining engine/truck companies move strategically into the vacated area(s) to ensure adequate coverage based upon the number of available apparatus. This practice is called an "move up".

Fire Prevention	July	August	September
Engine Company Inspections	66	82	74
Inspections	116	99	103
Plan Reviews	9	17	11
Code Enforcement Hours	0	0	1
Fire Investigation Hours	6	3	3

Quarterly Travel Times:

Based on the City's general plan, the Woodland Fire Department has adopted the national travel time standards set forth in NFPA 1710. These times are calculated using en route time (the time the company leaves the station) and arrival time (the time the company arrives on scene). Below is a breakdown of travel time goals and average travel times (in minutes) by type of call:

Quarterly Travel Times	July-September		
	Response Goal	Actual Performance	Average Travel Time
Structure Fire (1 st Unit)	4 minutes 90% of the time	77.70%	3:11
Fire- Other	4 minutes 90% of the time	74.50%	3:17
First Alarm Assignment- Woodland Units Only <i>(3 Engines, 1 Truck, 1BC)</i>	8 minutes 90% of the time	80.00%	7:09
Emergency Medical	4 minutes 90% of the time	72.71%	3:26



Automatic or Mutual Aid:

Automatic aid is provided to another agency through formal agreement and occurs automatically on significant events without any special request. Mutual aid occurs when fire departments provide help to one another upon special request when a significant event(s) (large incident or multiple small incidents) take place. Every fire agency in Yolo County is a signatory to this agreement.

	July	August	September
Aid Received	12	8	13
Aid Given	12	23	22
TOTAL	24	31	35



TO: THE HONORABLE MAYOR AND CITY COUNCIL

AGENDA: City Council Regular Meeting

DATE: November 20, 2018

ITEM #: I.5.

SUBJECT: Police Department Quarterly Status Report for the period of July 2018 through September 2018

Recommendation for Action: Staff recommends that the City Council accept the Police Department Quarterly Status Report for July 2018 through September 2018.

Staff Contact:

Luis Soler, Chief of Police, (530) 661-7834, Luis.Soler@cityofwoodland.org

Background:

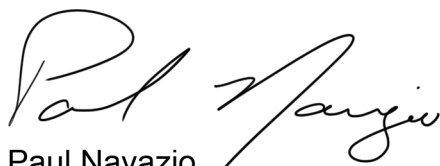
The Police Department Quarterly Status Report includes a summary of all activity within the Department. In lieu of providing comprehensive monthly status reports to the City Council and department heads via e-mail communication, the City Council will now be receiving Status Reports on a quarterly basis via agenda packet.

Conclusion:

Staff recommends that the City Council accept the Police Department Quarterly Status Report for July 2018 through September 2018.

Prepared By: Trista Kennedy, Executive Assistant

Reviewed By: Luis Soler, Chief of Police


Paul Navazio
City Manager

Attachments:

1. Qtrly report - Jul. - Sept. 2018



WOODLAND POLICE DEPARTMENT

QUARTERLY REPORT

July – September 2018



The Quarterly Status Report includes a wide variety of information in an effort to better inform the public and the City Council.

OFFICE OF THE CHIEF:

Personnel

July - September 2018	Budgeted	Filled
Sworn	67	64
Non-sworn (FTE)	15	14
Non-sworn (PT/Temp.)	7	6
TOTAL	89	84

Volunteers in Policing Program (ViPs):

The Department's ViP program consists of 32 Volunteers and 7 Chaplains. The ViPs and Chaplains contributed 873.25 for the 3rd quarter and a total of 2,418.17 hours for 2018. The total hours for this quarter are:

ViP Hours	July	August	September	Total
Chaplains	7.5	15	6.5	29
Volunteers	276.8	343.5	223.95	844.25

Woodland Youth Public Safety Academy (YPSA):

The Woodland Youth Public Safety Academy is an eight-week training program, the objective of which is to expose the student cadets to some very rewarding careers in public safety to include law enforcement and fire services. We place strong emphasis on self-respect, respect of others, teamwork and commitment to ones' goals. The academy is perfect for any Junior High School student who would like a challenge and to learn more about public safety. The leadership lessons they learn during the academy will last them a lifetime.

Current Session: August 20, 2018 – November 26, 2018

Class Topics include: Introduction to Fire, Introduction to Police, Wildland Firefighting, Motors and Traffic Unit, Auto Extrication & Rescue, Crime Scene Investigations, Hazmat, and School Resource Officers.

There are 20 7th and 8th grade cadets in this academy session. The cadets attend the following schools: Douglass Middle School, Lee Middle School, Woodland Christian School, Clarksburg Middle School, Esparto Middle School, South Sutter Home School and Johnson Junior High School.



WOODLAND POLICE DEPARTMENT

QUARTERLY REPORT

July – September 2018



Woodland Police Department Citizen Police Academy:

The Woodland Police Department Citizen Police Academy is a free interactive course designed to acquaint individuals who are not sworn police officers with the activities of the Police Department. The Citizen Police Academy is open to adults who live or work in the Woodland community.

The mission of the Citizen Police Academy is to strengthen community partnerships by offering citizens the opportunity to interact with our professional staff, increase their understanding of police operations and become ambassadors to the community.

Current Session: October 11, 2018 – December 20, 2018

Class Topics include: Police Department Overview & History, Patrol Operations, Recruitment/Training/FTO Program, K-9 Overview, Traffic laws & Enforcement, Traffic Stops, Use of Force Continuum, Defensive Tactics, Internal Affairs, Investigations, Criminal Justice System, Victim Assistance & Police provided information, COMPSTAT, Crime Scene Investigations, Homeless Outreach Street Team (HOST), Crime Prevention, and Community Programs.

There are 17 participants in this session of the Citizen Police Academy. The next academy will be in the Fall of 2019.

PATROL BUREAU:

The backbone of any police organization is its Patrol Division. The Woodland Police Department's Patrol Division provides quality law enforcement services to our community 24 hours every day, 365 days per year.

CRIME				Calendar Year 2018	
Category	July	August	September	Reported to CA DOJ	Percent change
Homicide	0	1	0	1	0%
Rape	1	1	1	10	-41.18%
Robbery	7	3	3	48	92%
Aggravated Assaults	9	13	10	90	-10.89
Simple Assaults	46	49	48	182	-53.21%
Burglary	28	13	28	193	-10.65%
Larceny/Thefts	95	101	110	805	-18.85%
Auto Theft	21	12	19	166	1.84%
Arson	4	2	2	14	-36.36%
TOTAL	211	195	221	1509	



WOODLAND POLICE DEPARTMENT

QUARTERLY REPORT

July – September 2018

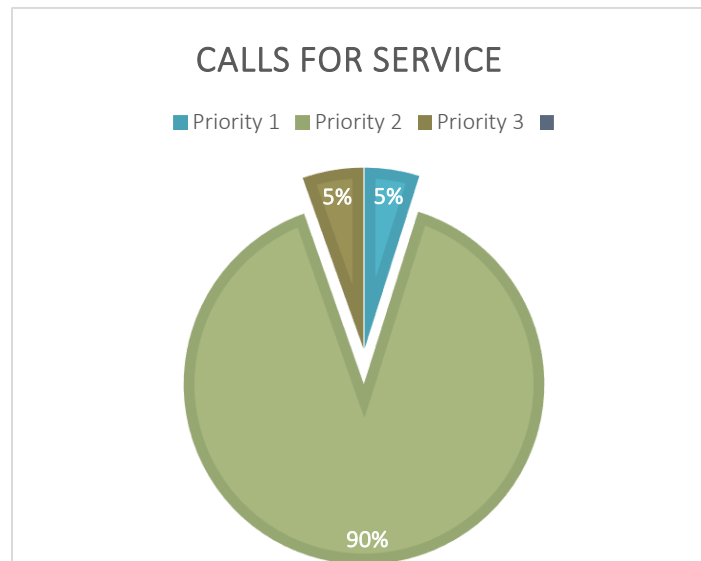


Reports

	July	August	September	3 rd Qtr. TOTAL	Previous Qtr. TOTAL	Percent change
Online Reports/Coplogics	32	26	33	91	75	+19.27%
Mail-in Reports (MLRs)	81	72	97	250	214	+15.52%
Other case numbers issued	556	598	634	1788	1522	+16.07%
TOTAL	669	696	764	2129	1811	+16.14%

Response Times

	July	August	September	Previous Qtr. Average
Priority 1	07:18	07:10	08:11	7:34
Priority 2	10:20	12:58	11:54	11:20
Priority 3	26:20	30:58	31:11	30:09



WORKLOAD

Calls for Service	July	August	September	TOTAL	Previous Qtr. Total
Priority 1	118	123	115	356	337
Priority 2	2253	2230	2082	6565	5,980
Priority 3	140	135	119	394	320
All other calls for service	3782	3562	3466	10810	10,823
TOTAL	6293	6050	5782	18125	17,460



WOODLAND POLICE DEPARTMENT

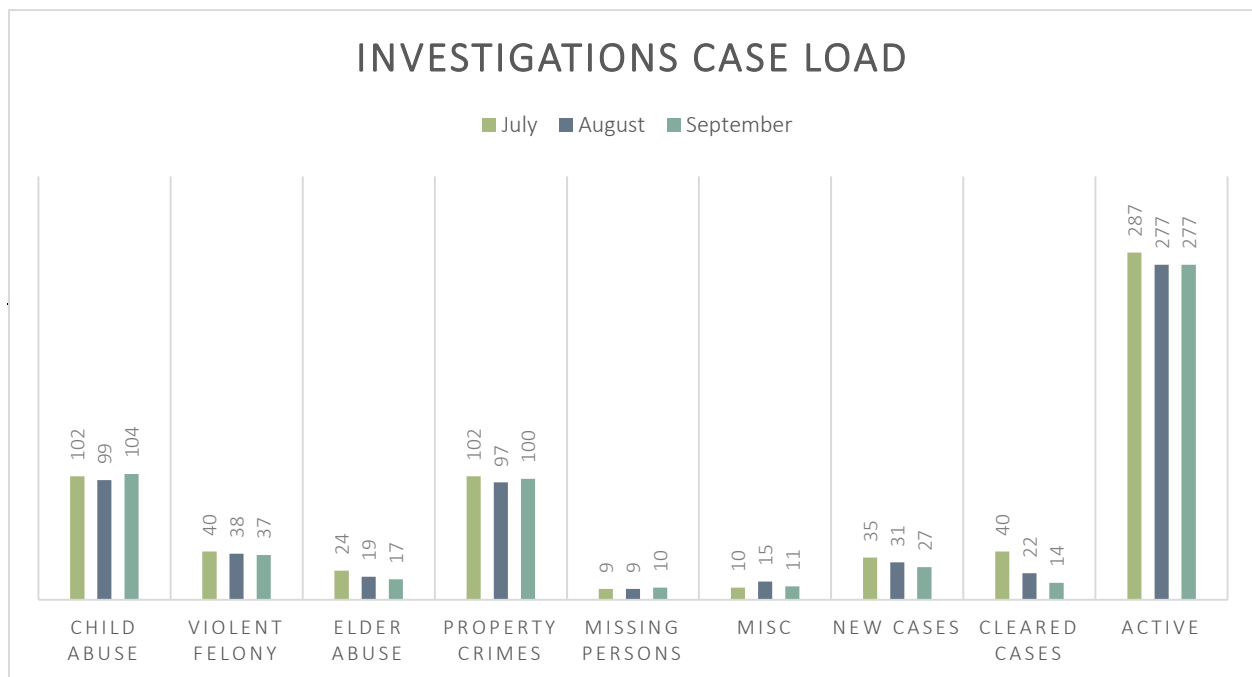
QUARTERLY REPORT

July – September 2018



INVESTIGATIONS BUREAU:

The Investigations Bureau conducts follow-up criminal investigations on all felony and select misdemeanor crimes reported to the Police Department. Typically, a uniformed police officer responds to a call for service and prepares a police report which may require follow-up investigation. A Police Investigator is then assigned to conduct the follow-up, often requiring many hours of investigation before an arrest is made or a case is closed.



290 Registrant Activity

	July	August	September
Total registrants	137	136	138
Total transient registrants	15	14	15
290 PC violation warrants issued	0	0	0
Not in compliance with annual update	1	0	0



WOODLAND POLICE DEPARTMENT

QUARTERLY REPORT

July – September 2018



COMMUNITY RELATIONS BUREAU:

The Community Relations Bureau is also responsible for all community outreach events, training, and media relations.

School Resource Officers (SRO):

There are three School Resource Officers (SROs) assigned to schools within the Woodland Joint Unified School District. They are responsible for all calls and incidents involving students while on school grounds. While responsible for typical calls for service at the campus, the SROs provide a much greater service.

The SROs had the following activity for the 3rd quarter of 2018:

Activity	July (No School)	August	September
Consensual contacts	X	1773	1741
Fighting	X	6	1
Alcohol violations	X	2	0
Gang activity	X	0	0
Narcotics	X	3	1
Truancy	X	6	3
Tobacco use	X	0	0
Vandalism	X	0	0
Theft	X	1	0
Weapons	X	0	0
Other misdemeanor crimes	X	3	1
Other felony crimes	X	2	0
Administrative/Home visits	X	85	12
Overall Total:	X	1881	1759

During the month of July SRO Gray, SRO McManus, and SRO Flores attended a G.R.E.A.T Instructor meeting. SRO Gray inventoried and scheduled upcoming G.R.E.A.T 4th and 7th grade classes. SRO Gray attended a meeting with the new principal at Lee Middle School. He also attended ALICE (Alert, Lockdown, Inform, Counter, and Evacuate) Instructor Certification Training in Foster City. SRO McManus researched, prepared, and delivered an active shooter presentation for the Daily Democrat, coached Junior Giants, and assisted HOST. SRO Flores attended Coffee with a Cop, was featured in the UNIDOS Facebook video, attended a UNIDOS Community meeting, and taught sessions 1 and 2 of the Explorer Academy. SRO Flores also coached Junior Giants, attended a Crisis Negotiations Team (CNT) training and a fall festival meeting.



WOODLAND POLICE DEPARTMENT QUARTERLY REPORT *July – September 2018*



In August, SRO Gray, SRO McManus, and SRO Flores patrolled WHS and PHS football games and taught G.R.E.A.T. at Lee Middle School. SRO Gray scheduled Red Ribbon Week, and attended the WJUSD safety meeting, and taught G.R.E.A.T at Whitehead Elementary School. He also made an English Language Advisory Committee (ELAC) presentation at Pioneer High School and taught ALICE at Dingle Elementary and Cash Creek High School. SRO McManus attended SWAT training. SRO Flores made a Chicano Studies presentation at WHS and an ELAC presentation at Beamer Elementary School.

In September, SRO Gray, SRO McManus, and SRO Flores all completed Narcan training. SRO Gray attended several meetings including the WJUSD safety meeting, WJUSD security guard meeting, and a Red Ribbon Week meeting at Woodland Christian School. He also held meetings with his school principals and attended a meet and greet at Whitehead Elementary. SRO Gray participated in back to school shopping, Child Spree at JC Penny and assisted Detectives in searching for a wanted subject and with a homicide investigation. He monitored several schools during the first two weeks of school and patrolled a PHS football game. SRO Flores attended several meetings including WJUSD Safety meeting, WJUSD security guard meeting, and SARB meeting. He attended orientations at both Lee Middle School and Woodland High School, participated in the back to school shopping, Child Spree at JC Penny and patrolled a Woodland High School football game.

Youth Gang Reduction, Intervention & Prevention (YGRIP)

Woodland's YGRIP Initiative will support safer communities through an expanded collaborative consisting of professionals and community members committed to reducing youth violence, gang membership, and gang activities through the three pillars of evidence-based strategies: suppression, intervention and prevention.

In addition, YGRIP has added the city's new Social Services Manager to the Operational Team. She will be assisting with case management for referrals received through the established process.

In September, the Operational team met and developed goals for this next calendar year. This includes an increase in referrals now that appropriate case management is available, seeking a partnership with additional mentor programs for troubled youth, increasing/improving public relations, and seeking grant funds for additional counseling/therapeutic services.

Woodland Police Activities League (WPAL)

PAL members mentored approximately 25 children during the WPAL Summer Program. They supervised and coached the children while the children participated in Flag Football, Basketball, Soccer, Boxing, Art, Confidence Course and Swimming. In addition to these activities, the children were provided with snacks, refreshments and lunch. At the end of the 2-week program, the participants were given a certificate and treated to a pizza party.

The WPAL building is in the finishing stages of renovation and should be able to have a grand opening at the end of November or early December. The first fundraising dinner is planned for the second or third week of December with a potential high profile guest speaker. WPAL is also



WOODLAND POLICE DEPARTMENT QUARTERLY REPORT *July – September 2018*



seeking grant funds through a variety of organizations including Cache Creek Casino, Wal-Mart, Target, and Teichert.

WPAL is in the process of securing a counseling partnership with Sacramento State University. We also plan to increase programming to include additional sports, music, and art programs before the end of 2018.

WPAL is collaborating with Woodland PD, WJUSD, and Empower Yolo for this year's Fill-the-Trunk giving event. WPAL will host a Santa's workshop for those families in need who are selected as recipients of the gifts. Kids will decorate cookies, make Christmas Cards, have hot chocolate, and meet Santa.

Gang Resistance Education and Training (G.R.E.A.T.) Program

G.R.E.A.T. is in its third year at elementary schools in Woodland. Officers will teach 28 classes over this next school year. They have held one graduation for two classes at Whitehead Elementary School and are currently teaching an additional seven classes with two additional graduations planned for November 14 and November 16. The next round of instruction will start in January of 2019.

This year, officers were excited to implement the Seventh Grade G.R.E.A.T. session for middle schools. This program is 12-weeks long and has started at Lee Middle School. They will instruct every student at Lee Middle School by the end of the school year and hope to add Douglas Middle School within the next two years.

The Seventh Grade program is an expansion on the Fourth Grade program with a re-visit to the key concepts from Fourth Grade and additional instruction on furthering character development, confidence, and success in school. The dedicated group of instructors work hard to provide the involved kids with the tools necessary to avoid delinquency and find success in their future.

Homeless Outreach Street Team (HOST) Information and Statistics

HOST continues to strive to reach the goal of helping people get off the streets, arresting those "problem" transients, reducing blight, reducing calls for service, and reducing impacts on the business community. Over the last quarter, members of HOST have attended over 15 meetings related to homeless issues, including taking part in planning of future shelter projects.

HOST was joined by the city's new Social Services Manager in September who has been instrumental in helping to get homeless engaged with services. HOST has had tremendous success in getting homeless to engage with services and had several of their best months in moving people off the street. This was due in large part to the Social Services Manager.

The following are some approximate general statistics related to HOST activity for the last quarter:

Contacts:	330
Camps:	59



WOODLAND POLICE DEPARTMENT

QUARTERLY REPORT

July – September 2018



Camps cleaned:	31
Services Offer/Accept:	14/4
Business Contacts:	29
Arrests:	18
Phone calls/emails:	17/14

SUPPORT SERVICES BUREAU:

The Support Services Bureau is comprised of non-sworn staff. The bureau encompasses the Records Division and Property and Evidence. The Records Division serves as one of the most important functions in the Department. The Division is responsible for entering and processing all crime, traffic, warrant, citation, towed vehicles and property information into computerized databases.

Records:

	Aug-Sep 2018	Previous Qtr. Total
Reports Processed	1840	1629
Citations Entered	270	286
Traffic Collisions	50	157
Warrants	701	735

Property and Evidence:

	Aug-Sep 2018	Previous Qtr. Total
Evidence Processed	1725	1176
Items Purged	721	717
Property for Safekeeping	187	153
Found Property	90	72
Property Returned to Owner	221	106



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: I.6.
SUBJECT: Household Hazardous Waste Grant Budget Appropriation

Recommendation for Action: Staff recommends that the City Council adopt Resolution No. _____, authorizing a budget appropriation of \$100,000 for the Household Hazardous Waste Grant for fiscal year 2018/19.

Staff Contact:

Reyna Piñon, Conservation Coordinator, (530) 661-2063, reyna.pinon@cityofwoodland.org

Fiscal Impact:

This action will result in a Household Hazardous Waste (HHW) Grant appropriation of \$100,000 to fund 386. The appropriation will be offset by reimbursement from CalRecycle.

Background:

In March 2018, City Council approved a resolution authorizing staff to submit regional grant applications to CalRecycle as lead agency for HHW Grants and authorizing the Public Works Director, or his/her designee, to execute CalRecycle grant documents on behalf of the city. In August 2018, CalRecycle awarded the City of Woodland, as lead agency in a County-wide multi-jurisdictional project (described below), a discretionary HHW Grant in the amount of \$100,000 that must be spent by September 2021.

Discussion:

The additional jurisdictions in this regional project are the Cities of Davis, West Sacramento, and Winters, and the County of Yolo. The participants will collaborate in a regional effort to expand HHW education and outreach, create new HHW collection sites, and increase collection participation in an effort to prevent HHW from being disposed of improperly in landfills and waterways.

Conclusion:

Staff recommends that the City Council adopt Resolution No. _____, authorizing a budget appropriation of \$100,000 for the Household Hazardous Waste Grant for fiscal year 2018/19.

Prepared By: Reyna Piñon, Conservation Coordinator

Reviewed By: Craig Locke, Public Works Director


Paul Navazio
City Manager

Attachments:

1. Resolution

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WOODLAND
AUTHORIZING APPROPRIATION OF FUNDS TO THE FISCAL YEAR 2018/19 HOUSEHOLD
HAZARDOUS WASTE GRANT BUDGET**

WHEREAS, in August 2018, CalRecycle awarded the City of Woodland, as lead agency in a County-wide multi-jurisdiction project, a discretionary Household Hazardous Waste Grant in the amount of \$100,000 that must be spent by September 2021; and

WHEREAS, staff wishes to appropriate \$100,000 for the Fiscal Year 2018/19 Household Hazardous Waste Grant budget; and

WHEREAS, the funding will be offset by reimbursement from CalRecycle.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WOODLAND that the Fiscal Year 2018/19 Household Hazardous Waste Grant appropriation shall be \$100,000.

PASSED AND ADOPTED by the City Council this 20th day of November 2018, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Enrique Fernandez, Mayor

ATTEST:

APPROVED AS TO FORM:

Ana B. Gonzalez, City Clerk

Kara K. Ueda, City Attorney



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: I.7.
SUBJECT: Authorize the Purchase of Four Police Chevy Impala Undercover Vehicles

Recommendation for Action: Staff recommends that the City Council approve Resolution No. _____, authorizing the purchase award of four replacement Police Chevy Impala undercover vehicles from Winner Chevrolet in the amount of \$111,491.00.

Staff Contact:

Troy Thompson, Fleet & Facilities Manager, troy.thompson@cityofwoodland.org, 530-661-5956

Council Goal:

Maintain City Infrastructure – providing reliable vehicles for the needs of the Police Department

Fiscal Impact:

The purchase will be made from the Vehicle Replacement Reserve Fund (Fund 012); the budget for the new replacement vehicles have already been adopted by the City Council in the FY2018/19 budget cycle.

Background:

The older undercover vehicles were scheduled for replacement in FY2018/2019 due to age and high maintenance costs. Fleet Services underwent a competitive bidding process for the new vehicles, and two bids were received from Winner Chevrolet for a total amount of \$111,491.00 and from the National Auto Fleet Group for a total amount of \$118,507.60. The local Chevrolet dealer was invited to bid but did not submit a proposal.

Discussion:

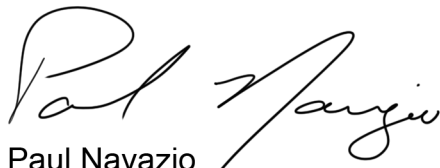
Although the Council adopted the budget to replace these vehicles, the purchases themselves require a separate Council action. Per the City's Purchasing Ordinance, all materials, supplies and equipment purchases greater than \$50,000 must be awarded by the City Council. Fleet Services will create purchase orders for each vehicle purchase upon Council approval. The dealership will place the vehicles on order once the purchase orders are received from the City. It will take approximately 15 weeks for delivery after the orders have been placed. Once the new vehicles arrive, Fleet Services will need about two weeks to in-process the vehicles before they are released to the Police Department for use. The older vehicles will be turned in for auction once the new vehicles are fully operational.

Conclusion:

Staff recommends that the City Council approve Resolution No. _____, authorizing the purchase award of four replacement Police Chevy Impala undercover vehicles from Winner Chevrolet in the amount of \$111,491.00.

Prepared by: Troy Thompson, Fleet & Facilities Manager

Reviewed by: Craig Locke, Public Works Director



Paul Navazio
City Manager

Attachments:

1. Resolution for Police Undercover Vehicles
2. Winner Chevrolet Quote

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WOODLAND
AUTHORIZING THE PURCHASE OF FOUR POLICE UNDERCOVER VEHICLES**

WHEREAS, four (4) older Police Chevy Impala undercover vehicles were budgeted for replacement in Fiscal Year 2018/19; and

WHEREAS, the City of Woodland invited competitive bids for the purchase of the replacement vehicles; and

WHEREAS, the City of Woodland received two bids from Winner Chevrolet for a total amount of \$111,491.00 and from the National Auto Fleet Group for a total amount of \$118,507.60; and

WHEREAS, the City of Woodland wishes to award the purchase of the new replacement Police undercover vehicles from Winner Chevrolet due to the dealership being the lowest bidder;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WOODLAND: hereby authorizes the purchase of four (4) replacement Police Chevy Impala undercover vehicles from Winner Chevrolet in the amount of \$111,491.00.

PASSED AND ADOPTED by the City Council on this 20th day of November 2018, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Enrique Fernandez, Mayor

APPROVED AS TO FORM:

Kara K. Ueda, City Attorney

ATTEST:

Ana Gonzalez, City Clerk

8575 Laguna Grove Drive
Elk Grove, CA 95757
916-426-5752

To:
Troy Thompson
City of Woodland
655 N. Pioneer
Woodland, CA 95776
(530) 661-5956

Prepared by: Jerry Powers

Description		AMOUNT
2019 Impala LT - Specs attached.		\$ 25,800.00
**** Please review, sign, and return a copy of the quote and **** **** specs with the PO or the vehicle will not be ordered. **** ****Shipping charge added for deliveries beyond Sacramento. No charge for will call.****		
Subtotal:		\$ 25,800.00
Tax (Subject to change): 8.000%		\$ 2,064.00
CA Tire Fee: \$1.75 / Per Tire	Tire Fee:	\$8.75
Total		\$ 27,872.75

THANK YOU FOR YOUR BUSINESS!

Notice Inviting Bids
2018 or newest model Chevrolet Impala
4dr Sdn 1LT

Revision 2

October 22, 2018



City of Woodland
655 N. Pioneer Ave
Woodland, CA 95776

City Contact:
Troy Thompson
troy.thompson@cityofwoodland.org

530-661-5956

SECTION A. NOTICE INVITING BIDS

A.1 .General Description of Work

The City of Woodland is soliciting bids from qualified Chevrolet dealerships for four (4) Chevrolet Impala 1LT's. Each vehicle will be a different color. Please see "**Exhibit A**" for the vehicles options. The City of Woodland will choose one dealership for the purchase of these vehicles.

A.2. Schedule of Bid Period Activities

The tentative schedule and terms of the activities of the project is as follows:

October 19, 2018 – Notice Inviting Bids published, bid period commences

October 29, 2018 – Bids due by 4:00 pm

November 20, 2018 – Council Meeting

November 21 - 23, 2018 – Purchase Order Sent to Dealership

A.3. Bid Submissions

Bids can be emailed to troy.thompson@cityofwoodland.org, or either dropped off or mailed to 655 N. Pioneer Avenue, Woodland, CA 95776 no later than 4:00 pm on October 29, 2018.

A.4. Owner Contact for Questions and Site Visits

Bidder must refer all inquiries relating to the requirements of this bid offer to Troy Thompson, Fleet & Facilities Manager, at 530-661-5956, or by e-mail at troy.thompson@cityofwoodland.org. Bidders can also address their inquiries by mail or walk-in at 655 N. Pioneer Avenue, Woodland, CA 95776.

SECTION B. DESCRIPTION OF WORK

B.1. Quote Details

Dealership must provide a quote on company letterhead with the following details:

- a. Dealer point of contact name, phone number and email address
- b. Base price of vehicle
- c. Vehicle Build Up (see Exhibit "A ")
- d. Subtotals
- e. Taxes, fees and transportation
- f. Specify discount if offered
- g. Warranty information
- h. Net terms

SECTION C. EVALUATION

C.1. Evaluation Criteria

The City will endeavor to receive bids from at least three different dealerships.

The City will award the contract to the lowest responsive bidder taking into account the full price of the vehicle, applicable taxes/fees, optional features, and warranty terms. There will also be a 5% local bidder preference. The City has the right to waive any and all bids.

C.2. Award of Proposal

If the proposal is \$15,000 or less, the proposal may be awarded by the Public Works Director. If the proposal is between \$15,001 and \$50,000, the proposal may be awarded by the City Manager. If the proposal is over \$50,000 it shall be presented to the City Council for award. Contracts will be awarded to the lowest and responsible bidder. If two (2) or more bids are the same and the lowest, the authorized contracting party may accept the one it chooses.

Exhibit "A"

Specifications for (4) Chevy Impalas

#704, #714, #716, #717 Replacements

- ✓ • 2018 or newest model Chevy Impala 4-door Sedan 1LT - *2019*
- ✓ • ~~FE9~~ – Emissions , Federal Requirements - *YF5 for California required.*
- ✓ • LFX – Engine 3.6L DOHC V6 DI
- ✓ • M7W – Transmission, 6-Speed Automatic
- ✓ • 1LT – LT Preferred Equipment Group
- ✓ • QGK – Tires, P235/50R All Season Black wall
- ✓ • Chevy Impala #1: GAN – Silver Metallic
- ✓ • Chevy Impala #2: G7Q – Nightfall Gray Metallic
- ✓ • Chevy Impala #3: GB8 – Mosaic Black Metallic
- ✓ • Chevy Impala #4: G1M – Blue Velvet Metallic
- ✓ • A51 – Front Bucket Seats
- ✓ • H0U – Jet Black/Dark Titanium Premium Cloth Seat
- ✓ • IO5 – Audio System, Chevrolet Mylink Radio
- ✓ • Bluetooth
- ✓ • ~~PCP~~ – Convenience Package - *N/A on 1LT*
- ✓ • VK3 – License Plate Bracket, Front
- ✓ • RVW – LPO Trunk Organizer
- ✓ • UVC – Rear Vision Camera - *Standard on vehicle*
- ✓ • ~~UFT~~ – Side Blind Zone Alert - *included w/ WPV and forces P15 on.*
UKC →

Specify on P.O.

- ✓• R9Y – Fleet Free Maintenance Credit
- ✓• RT4 – Wheels 18"
- ✓• Tinted Windows → offered as a dealer installed item.
- ✓• Total of 4 (four) Sets of Keys for each vehicle, all vehicles keyed alike



Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2)



In an effort to offer your agency the best possible price,
this quote is based on the Ca. State Contract at no
additional cost to you and reflects your specifications.



Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

Table of Contents

- Dealership Information
- Price Summary
- Window Sticker
- Weight Rating
- Selected Model and Options
- Standard Equipment
- Technical Specifications

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Data Version: 6839. Data Updated: Oct 24, 2018 9:43:00 PM PDT.



Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

Dealership Information

PLEASE REVIEW THE "WINDOW STICKER," QUOTE, AND ALL INCLUDED INFORMATION AND SPECIFICATIONS FOR ACCURACY. IF A PURCHASE ORDER IS ISSUED, PLEASE INCLUDE A SIGNED COPY OF THIS QUOTE WITH THE "WINDOW STICKER." BY THIS QUOTE BEING SIGNED AND RETURNED BY THE PURCHASING AGENCY, THE PURCHASING AGENCY ACKNOWLEDGES THAT THE VEHICLE CONFIGURATION AND PRICE ARE ACCURATE. **TAX IS NOT INCLUDED IN THE QUOTE PRICE. PURCHASING AGENCY IS RESPONSIBLE FOR CALCULATING TAX. THE TAX RATE IS BASED ON THE REGISTRATION ADDRESS AND CANNOT BE A PO BOX. *****IF THE VEHICLE IS GOING TO BE DELIVERED BEYOND F.O.B. SACRAMENTO, ADDITIONAL COST WILL BE REQUIRED. ***

Prepared By:

Jerry Powers
Winner Chevrolet / Elk Grove Auto Group
916-426-5752
JPowers@LasherAuto.com

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Winner Chevrolet / Elk Grove Auto Group

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[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Price Summary

PRICE SUMMARY	
	MSRP
Base Price	\$30,520.00
Total Options	\$2,611.25
Vehicle Subtotal	\$33,131.25
Destination Charge	\$875.00
Grand Total	\$34,006.25

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[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Window Sticker

SUMMARY

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn LT w/1LT

MSRP:\$30,520.00

Interior:Jet Black, Premium cloth/leatherette seat trim

Exterior 1:No color has been selected.

Exterior 2:No color has been selected.

Engine, 3.6L DOHC V6 DI with Variable Valve Timing (VVT)

Transmission, 6-speed automatic, electronically-controlled with overdrive

OPTIONS

CODE	MODEL	MSRP
1GY69	[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn LT w/1LT	\$30,520.00
OPTIONS		
1LT	LT Preferred Equipment Group	\$0.00
A51	Seats, front bucket	\$0.00
AP9	Cargo convenience net, trunk	Inc.
B36	Trunk mat, carpeted	Inc.
B58	Floor mats, premium carpeted front and rear	Inc.
D70	Axle, 2.77 final drive ratio	Inc.
DD8	Mirror, inside rearview auto-dimming	Inc.
H0U	Jet Black, Premium cloth/leatherette seat trim	\$0.00
IO5	Audio system, Chevrolet Infotainment System with 8" diagonal color touch-screen, AM/FM stereo	\$0.00
KA1	Seats, heated driver and front passenger	Inc.
KI6	Power outlet, 120-volt, located on the rear of center console	Inc.
LFX	Engine, 3.6L DOHC V6 DI with Variable Valve Timing (VVT)	\$1,095.00
M7W	Transmission, 6-speed automatic, electronically-controlled with overdrive	Inc.
NWT	Exhaust, dual stainless-steel with hidden, turned-down tips	Inc.
PI5	LT Convenience Package	\$875.00
QGK	Tires, P235/50R18 all-season, blackwall	\$0.00
R9Y	Fleet Free Maintenance Credit	(\$33.75)

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[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

RT4	Wheels, 18" (45.7 cm) painted alloy		\$0.00
RVW	LPO, Trunk organizer		\$140.00
T67	Battery, 70AH, maintenance free with rundown protection, heavy-duty 512 cold-cranking amps	Inc.	
UD7	Rear Park Assist	Inc.	
UFG	Rear Cross-Traffic Alert	Inc.	
UG1	Universal Home Remote	Inc.	
UKC	Side Blind Zone Alert with Lane Change Alert	Inc.	
UVD	Steering wheel, heated	Inc.	
VK3	License plate bracket, front		\$40.00
VQ2	Fleet processing option		\$0.00
WPV	Driver Confidence Package		\$495.00
YF5	Emissions, California state requirements		\$0.00

SUBTOTAL	\$33,131.25
Adjustments Total	\$0.00
Destination Charge	\$875.00
TOTAL PRICE	\$34,006.25

FUEL ECONOMY

Est City:19 (2018) MPG

Est Highway:28 (2018) MPG

Est Highway Cruising Range:518.00 mi

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[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Weight Ratings

WEIGHT RATINGS

Front Gross Axle Weight Rating:	Rating Not Available
Rear Gross Axle Weight Rating:	Rating Not Available
Gross Vehicle Weight Rating:	Rating Not Available

Selected Model and Options

MODEL

CODE	MODEL	MSRP
1GY69	2019 Chevrolet Impala 4dr Sdn LT w/1LT	\$30,520.00

PREFERRED EQUIPMENT GROUP

CODE	DESCRIPTION	MSRP
1LT	LT Preferred Equipment Group includes Standard Equipment	\$0.00

SEAT TYPE

CODE	DESCRIPTION	MSRP
A51	Seats, front bucket (STD)	\$0.00

ADDITIONAL EQUIPMENT - INTERIOR

CODE	DESCRIPTION	MSRP
AP9	Cargo convenience net, trunk (Included and only available with (PI5) LT Convenience Package.)	Inc.
B36	Trunk mat, carpeted (Included and only available with (PI5) LT Convenience Package.)	Inc.
B58	Floor mats, premium carpeted front and rear (Included and only available with (PI5) LT Convenience Package.)	Inc.
DD8	Mirror, inside rearview auto-dimming (Included and only available with (PI5) LT Convenience Package.)	Inc.
KA1	Seats, heated driver and front passenger (Included and only available with (PI5) LT Convenience Package.)	Inc.
KI6	Power outlet, 120-volt, located on the rear of center console (Included and only available with (PI5) LT Convenience Package or (Y3W) LT Entertainment Package.)	Inc.
UG1	Universal Home Remote includes garage door opener, 3-channel programmable (Included and only available with (PI5) LT Convenience Package.)	Inc.
UVD	Steering wheel, heated (Included and only available with (PI5) LT Convenience Package.)	Inc.

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[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) (⚠ Incomplete)

ADDITIONAL EQUIPMENT - MECHANICAL

CODE	DESCRIPTION	MSRP
NWT	Exhaust, dual stainless-steel with hidden, turned-down tips (Included and only available with (LFX) 3.6L V6 engine.)	Inc.
T67	Battery, 70AH, maintenance free with rundown protection, heavy-duty 512 cold-cranking amps (Included and only available with (LFX) 3.6L V6 engine.)	Inc.

ADDITIONAL EQUIPMENT - PACKAGE

CODE	DESCRIPTION	MSRP
PI5	LT Convenience Package includes (KA1) heated driver and front passenger seats, (UVD) heated steering wheel, (DD8) auto-dimming inside rearview mirror, (UG1) Universal Home Remote, (KI6) 120-volt power outlet, (AP9) trunk cargo convenience net, (B58) premium carpeted front and rear floor mats and (B36) carpeted trunk mat	\$875.00
WPV	Driver Confidence Package includes (UFG) Rear Cross-Traffic Alert, (UD7) Rear Park Assist and (UKC) Side Blind Zone Alert with Lane Change Alert (Requires (PI5) LT Convenience Package and (LFX) 3.6L V6 engine.)	\$495.00

ADDITIONAL EQUIPMENT - SAFETY-INTERIOR

CODE	DESCRIPTION	MSRP
UD7	Rear Park Assist (Included and only available with (WPV) Driver Confidence Package.)	Inc.
UFG	Rear Cross-Traffic Alert (Included and only available with (WPV) Driver Confidence Package.)	Inc.
UKC	Side Blind Zone Alert with Lane Change Alert (Included and only available with (WPV) Driver Confidence Package.)	Inc.

ADDITIONAL EQUIPMENT - EXTERIOR

CODE	DESCRIPTION	MSRP
VK3	License plate bracket, front	\$40.00

ADDITIONAL EQUIPMENT - LPO

CODE	DESCRIPTION	MSRP
RVW	LPO, Trunk organizer	\$140.00

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[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

ADDITIONAL EQUIPMENT - OTHER

CODE	DESCRIPTION	MSRP
R9Y	Fleet Free Maintenance Credit This option code provides a credit in lieu of the free oil changes, tire rotations and inspections for one maintenance service during 1st year of ownership. The invoice will detail the applicable credit. The customer will be responsible for all oil change, tire rotations and inspections costs for this vehicle. (Requires one of the following Fleet or Government order types: FBC, FBN, FCA, FCN, FEF, FLS, FNR, FRC or FGO. Not available with FDR order types.) *CREDIT*	(\$33.75)
VQ2	Fleet processing option	\$0.00

AXLE

CODE	DESCRIPTION	MSRP
D70	Axle, 2.77 final drive ratio (Included and only available with (LFX) 3.6L V6 engine.)	Inc.

SEAT TRIM

CODE	DESCRIPTION	MSRP
H0U	Jet Black, Premium cloth/leatherette seat trim	\$0.00

RADIO

CODE	DESCRIPTION	MSRP
IO5	Audio system, Chevrolet Infotainment System with 8" diagonal color touch-screen, AM/FM stereo with seek-and-scan and digital clock, includes Bluetooth streaming audio for music and select phones; voice-activated technology for radio and phone; featuring Android Auto and Apple CarPlay capability for compatible phone and Shop with the ability to browse, select and install apps to your vehicle. Apps include Pandora, iHeartRadio, The Weather Channel and more (STD)	\$0.00

ENGINE

CODE	DESCRIPTION	MSRP
LFX	Engine, 3.6L DOHC V6 DI with Variable Valve Timing (VVT) (305 hp [227.4 kW] @ 6800 rpm, 264 lb-ft of torque [356.4 N-m] @ 5200 rpm) (Includes E85 FlexFuel-capable with (FE9) Federal emissions. When ordering (NE1/YF5) Northeast/California emissions for E85 include (NC7) Federal emissions override for Fleet or Government order types only.)	\$1,095.00

TRANSMISSION

CODE	DESCRIPTION	MSRP
M7W	Transmission, 6-speed automatic, electronically-controlled with overdrive (Included and only available with (LFX) 3.6L V6 engine.)	Inc.

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Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

TIRES

CODE	DESCRIPTION	MSRP
Q GK	Tires, P235/50R18 all-season, blackwall (STD)	\$0.00

WHEEL TYPE

CODE	DESCRIPTION	MSRP
RT4	Wheels, 18" (45.7 cm) painted alloy (STD)	\$0.00

EMISSIONS

CODE	DESCRIPTION	MSRP
YF5	Emissions, California state requirements	\$0.00

Options Total **\$2,611.25**

Standard Equipment

Mechanical

Engine, ECOTEC 2.5L DOHC 4-cylinder DI with Variable Valve Timing (VVT) and auto stop/start (197 hp [147 kW] @ 6300 rpm, 191 lb-ft of torque [258 N-m] @ 4400 rpm) (STD)

Transmission, 6-speed automatic (STD) (Included and only available with (LCV) 2.5L engine.)

Axle, 3.23 final drive ratio (Included and only available with (LCV) 2.5L engine.)

Engine control, stop-start system (Included and only available with (LCV) 2.5L engine.)

Hill Start Assist

Front wheel drive

Battery, 800 cold-cranking amps (Included and only available with (LCV) 2.5L engine.)

Alternator, 150 amps

Chassis equipment, front strut assembly

Suspension, rear 4-link

Steering, power, variable assist, electric

Brakes, 4-wheel antilock, 4-wheel disc

Brake lining, high-performance, noise and dust performance with FNC rotors

Exhaust, single-outlet stainless-steel with hidden, turned-down tip

Exterior

Wheels, 18" (45.7 cm) painted alloy (STD)

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Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) (⚠ Incomplete)

Exterior

Tires, P235/50R18 all-season, blackwall (STD)

Wheel, compact spare, 17" (43.2 cm) steel

Tire, compact spare, T125/70R17

Headlamps, halogen

Headlamp control, automatic on and off

Glass, acoustic, laminated front-side and windshield

Mirrors, outside heated power-adjustable manual-folding with integrated turn signal indicators and ground illumination (Body-color mirror caps.)

Wipers, front intermittent

Door handles, body-color

Entertainment

Audio system, Chevrolet Infotainment System with 8" diagonal color touch-screen, AM/FM stereo with seek-and-scan and digital clock, includes Bluetooth streaming audio for music and select phones; voice-activated technology for radio and phone; featuring Android Auto and Apple CarPlay capability for compatible phone and Shop with the ability to browse, select and install apps to your vehicle. Apps include Pandora, iHeartRadio, The Weather Channel and more (STD)

Audio system feature, 6-speaker system 100-watt

Audio system feature, 8" diagonal color infotainment display, touch-screen, motorized power up/down with hidden storage and valet password lock

Audio system feature, USB port, located in console

Audio system feature, USB port, located behind radio touch-screen

SiriusXM Radio Enjoy a 3-month All Access trial subscription with over 150 channels including commercial-free music, plus sports, news and entertainment. Plus listening on the app and online is included, so you'll hear the best SiriusXM has to offer, anywhere life takes you. Welcome to the world of SiriusXM. (IMPORTANT: The SiriusXM radio trial package is not provided on vehicles that are ordered for Fleet Daily Rental ("FDR") use. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call us at 1-866-635-2349. See our Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change.)

Bluetooth for phone, streaming audio for music for select phones

Steering wheel controls, mounted audio and cruise controls

Chevrolet 4G LTE and available built-in Wi-Fi hotspot offers a fast and reliable Internet connection for up to 7 devices; includes data trial for 1 month or 3GB (whichever comes first) (Available Wi-Fi requires compatible mobile device, active OnStar service and data plan. Data plans provided by AT&T. Visit onstar.com for details and system limitations.)

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Data Version: 6839. Data Updated: Oct 24, 2018 9:43:00 PM PDT.



Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Interior

Seats, front bucket (STD)

Seat trim, premium cloth/leatherette

Seat adjuster, driver 8-way power

Seat adjuster, front passenger, 4-way manual

Seat adjuster, driver power lumbar

Seat adjuster, front passenger power lumbar

Head restraints, 4-way adjustable, up/down, fore/aft, front

Seat, rear 60/40 split-folding

Head restraints, rear, adjustable, folding

Storage compartment, front, uplevel with cover

Storage, innovative, hidden behind 8" diagonal touch screen with valet-mode lockable, dedicated umbrella storage in front door and hidden storage in trunk

Armrest, rear center

Floor mats, carpeted front

Floor mats, carpeted rear

Steering column, manual tilt and telescopic

Steering wheel, 4-spoke leather-wrapped

Instrumentation, analog with speedometer, tachometer, engine temperature and fuel gauge with color Driver Information Center

Driver Information Center, color display includes trip/fuel information, vehicle information and vehicle messages

Compass display, located in the Driver Information Center

Window, power with driver Express-Up and Down

Windows, power with Express-Down on all

Brake, park, electronic push button powered located on instrument panel left of steering wheel

Keyless Open

Keyless Start

Remote vehicle starter system includes key fob with button functions for lock, unlock, panic, and remote start

Cruise control, electronic with set and resume speed

Trunk release, power located inside on instrument panel left of steering wheel

Trunk opening touch pad

Theft-deterrent system

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Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Interior

Air conditioning, dual-zone automatic climate control with individual climate settings for driver and front passenger

Vent, rear console, air

Defogger, rear-window

Power outlet, 1, auxiliary, 12-volt located inside console

Power outlet, auxiliary, 12-volt located on rear of console

Map pockets, driver and front passenger seatbacks

Mirror, inside rearview manual day/night

Visors, driver and front passenger illuminated vanity mirrors

Assist handles, driver, front passenger and rear outboard

Lighting, interior with theater dimming, delayed entry/exit, glovebox and trunk

Shift knob, leather-wrapped

Safety-Mechanical

Brake Assist, panic

Brake control, cornering

StabiliTrak, stability control system

Traction control

Safety-Exterior

Daytime Running Lamps, upper and lower auxiliary, LED

Safety-Interior

Airbags, 10 total, frontal and knee for driver and front passenger, side-impact seat-mounted and roof rail for front and rear outboard seating positions includes Passenger Sensing System (Always use seat belts and child restraints. Children are safer when properly secured in a rear seat in the appropriate child restraint. See the Owner's Manual for more information.)

OnStar and Chevrolet connected services capable (Fleet orders receive a 3-month trial. Visit onstar.com for coverage map, details and system limitations. Services vary by model.)

Chevrolet Connected Access with 10 years of standard connectivity which enables services such as, Vehicle Diagnostics, Dealer Maintenance Notification, Chevrolet Smart Driver, Marketplace and more (Limitations apply. Not transferable. Standard connectivity available to original purchaser for ten years from the date of initial vehicle purchase for model year 2018 or newer Chevrolet vehicles. See onstar.com for details and further plan limitations. Connected Access does not include emergency or security services. Availability and additional services enabled by Connected Access are subject to change.)

Rear Vision Camera

Seat belts, 3-point, all positions

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Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Safety-Interior

Seat belt pretensioners, driver and front passenger

Door and window locks, rear child security, power

LATCH system (Lower Anchors and Top tethers for CHildren) for child safety seats

Tool kit, road emergency

WARRANTY

Warranty Note: <<< Preliminary 2019 Warranty Note >>>

Basic Years: 3

Basic Miles/km: 36,000

Drivetrain Years: 5

Drivetrain Miles/km: 60,000

Drivetrain Note: Qualified Fleet Purchases: 5 Years/100,000 Miles

Corrosion Years (Rust-Through): 6

Corrosion Years: 3

Corrosion Miles/km (Rust-Through): 100,000

Corrosion Miles/km: 36,000

Roadside Assistance Years: 5

Roadside Assistance Miles/km: 60,000

Roadside Assistance Note: Qualified Fleet Purchases: 5 Years/100,000 Miles

Maintenance Note: 1 Year/1 Visit

Technical Specifications

Powertrain

Transmission

Drivetrain	Front Wheel Drive	Trans Order Code	M7W
Trans Type	6	Trans Description Cont.	Automatic
Trans Description Cont. Again	N/A	First Gear Ratio (:1)	4.48
Second Gear Ratio (:1)	2.87	Third Gear Ratio (:1)	1.84
Fourth Gear Ratio (:1)	1.41	Fifth Gear Ratio (:1)	1.00
Sixth Gear Ratio (:1)	0.74	Reverse Ratio (:1)	2.88
Clutch Size	N/A	Final Drive Axle Ratio (:1)	2.77

Mileage

EPA Fuel Economy Est - Hwy	28 (2018) MPG	Cruising Range - City	351.50 mi
EPA Fuel Economy Est - City	19 (2018) MPG	Fuel Economy Est-Combined	22 (2018) MPG
Cruising Range - Hwy	518.00 mi	EPA MPG Equivalent - City	N/A
EPA MPG Equivalent - Hwy	N/A	EPA MPG Equivalent - Combined	N/A

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Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Powertrain

Mileage

Battery Range N/A

Engine

Engine Order Code	LFX	Engine Type	Gas/Ethanol V6
Displacement	3.6L/217	Fuel System	Direct Injection
SAE Net Horsepower @ RPM	305 @ 6800	SAE Net Torque @ RPM	264 @ 5200

Electrical

Cold Cranking Amps @ 0° F (Primary)	512	Maximum Alternator Capacity (amps)	150
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Cooling System

Total Cooling System Capacity 7.5 qts

Vehicle

Emissions

Tons/yr of CO2 Emissions @ 15K mi/year	8.0 (2018)	EPA Greenhouse Gas Score	N/A
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Vehicle

EPA Classification Large Cars

Chassis

Weight Information

Base Curb Weight N/A

Trailer

Dead Weight Hitch - Max Trailer Wt.	1000 lbs	Dead Weight Hitch - Max Tongue Wt.	100 lbs
Wt Distributing Hitch - Max Trailer Wt.	1000 lbs	Wt Distributing Hitch - Max Tongue Wt.	100 lbs

Suspension

Suspension Type - Front	MacPherson Strut	Suspension Type - Rear	Multi-Link
Suspension Type - Front (Cont.)	N/A	Suspension Type - Rear (Cont.)	w/Coil Springs
Shock Absorber Diameter - Front	N/A	Shock Absorber Diameter - Rear	N/A

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Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Chassis

Suspension

Stabilizer Bar Diameter - Front	1.1 in	Stabilizer Bar Diameter - Rear	N/A
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Tires

Front Tire Order Code	QGK	Rear Tire Order Code	QGK
Spare Tire Order Code	QCL	Front Tire Size	P235/50R18
Rear Tire Size	P235/50R18	Spare Tire Size	T125/70R17

Wheels

Front Wheel Size	18 x -TBD- in	Rear Wheel Size	18 x -TBD- in
Spare Wheel Size	17 x -TBD- in	Front Wheel Material	Aluminum
Rear Wheel Material	Aluminum	Spare Wheel Material	Steel

Steering

Steering Type	Electric Rack & Pinion	Steering Ratio (:1), Overall	15.2
Lock to Lock Turns (Steering)	2.73	Turning Diameter - Curb to Curb	38.8 ft
Turning Diameter - Wall to Wall	N/A		

Brakes

Brake Type	Pwr	Brake ABS System	4-Wheel
Brake ABS System (Second Line)	N/A	Disc - Front (Yes or)	Yes
Disc - Rear (Yes or)	Yes	Front Brake Rotor Diam x Thickness	12.6 x 1.2 in
Rear Brake Rotor Diam x Thickness	12.4 x 0.9 in	Drum - Rear (Yes or)	N/A
Rear Drum Diam x Width	N/A		

Fuel Tank

Fuel Tank Capacity, Approx	18.5 gal	Aux Fuel Tank Capacity, Approx	N/A
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Dimensions

Interior Dimensions

Passenger Capacity	5	Passenger Volume	105 ft³
Front Head Room	39.90 in	Front Leg Room	45.80 in

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Winner Chevrolet / Elk Grove Auto Group

Jerry Powers | 916-426-5752 | JPowers@LasherAuto.com

[Fleet] 2019 Chevrolet Impala (1GY69) 4dr Sdn (2) ( Incomplete)

Dimensions

Interior Dimensions

Front Shoulder Room	57.90 in	Front Hip Room	54.90 in
Second Head Room	37.40 in	Second Leg Room	39.80 in
Second Shoulder Room	56.90 in	Second Hip Room	54.10 in

Exterior Dimensions

Wheelbase	111.70 in	Length, Overall	201.30 in
Width, Max w/o mirrors	73.00 in	Height, Overall	58.90 in
Track Width, Front	62.20 in	Track Width, Rear	62.00 in
Min Ground Clearance	N/A	Liftover Height	N/A

Cargo Area Dimensions

Trunk Volume	18.8 ft³
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TO: THE HONORABLE MAYOR AND CITY COUNCIL
 AGENDA: City Council Regular Meeting
 DATE: November 20, 2018
 ITEM #: I.8.
 SUBJECT: Spring Lake Maintenance CFD Annual Accountability Report

Recommendation for Action: Staff recommends that the City Council accept the Spring Lake Maintenance Community Facilities District Local Agency Special Tax and Bond Accountability Report for the Fiscal Year Ended June 30, 2018.

Staff Contact:

Adam Devlin, Senior Accountant - (530)661-5835, adam.devlin@cityofwoodland.org

Fiscal Impact:

The table below provides a description of the collection of special taxes and the funds disbursed for authorized expenditures in fiscal year 2017/2018.

Description	Amount
Beginning Balance as of July 1, 2017	\$152,534.36
<u>Revenues</u>	
Special Tax Collections	\$450,739.60
Interest Accrued	\$1,755.67
General Fund Transfer	\$0.00
<i>Subtotal Revenues</i>	<i>\$452,495.27</i>
<u>Expenditures</u>	
Administrative Expenses	(\$12,294.84)
Park Maintenance Costs	(\$444,204.73)
General Fund ¹	(\$4,222.00)
<i>Subtotal Expenditures</i>	<i>(\$460,721.57)</i>
Ending Balance as of June 30, 2018	\$144,308.06

¹ Fund transfer, contribution to Debt Service.

Background:

The Spring Lake Specific Plan (SLSP) was adopted by Council in December 2001. A portion of the park requirement for the SLSP was satisfied through purchase of ~28 acres of the 40 acre Sports Park. In order to help fund the cost of operations of the Sports Park, the landowners within the SLSP voted in favor of forming a Community Facilities District ("CFD").

The Local Agency Special Tax and Bond Accountability Act ("Accountability Act") was enacted by California State Legislature through Senate Bill 165 to provide accountability measures for any local special tax and/or bond measure subject to voter approval on or after January 2001. According to the requirements of the Accountability Act (Sections 50075.1 and 53410 of the Government Code of the State of California), an annual report must be filed by the local agency levying the special tax and/or issuing a bond measure and shall contain a description of the following:

1. The amount of funds collected and expended.
2. The status of any project required or authorized to be funded by the special tax measure.

This report ("Accountability Report") has been prepared for the Spring Lake Maintenance Community Facilities District of the City of Woodland for the fiscal year ended June 30, 2018 pursuant to and in accordance with the requirements outlined in the Accountability Act. This report is attached for the Council's review.

Discussion:

On March 22, 2005, the City Council of the City established the CFD pursuant to the provisions of the Mello-Roos Community Facilities Act of 1982 (the "Act"). The CFD is authorized to levy a special tax generally to provide for sports park facilities maintenance services and incidental expenses related to the administration of the CFD. Sports Park Maintenance costs that can be funded by the CFD include, but are not limited to, athletic fields, snack bars, restrooms, multi-use paths, parking lots and park roadways. The authorized costs of service include the cost of labor,

materials, administration, personnel, equipment and utilities.

The City is legally required to maintain a separate fund to account for revenues and expenditures related to the CFD. The source of revenue in this fund is the annual CFD levy paid by the Spring Lake homeowners. Properties for which the City has issued a building permit are required to pay the maximum annual levy; undeveloped property is subject to these fees and has been assessed at a rate less than the maximum since FY2013/14.

Conclusion:

Staff recommends that the City Council accept the Spring Lake Maintenance Community Facilities District Local Agency Special Tax and Bond Accountability Report for the Fiscal Year Ended June 30, 2018.

Prepared By: Adam Devlin, Senior Accountant

Reviewed By: Kimberly McKinney, Finance Officer/Treasurer



Paul Navazio
City Manager

Attachments:

1. SB 165 Report Woodland 2018



**CITY OF WOODLAND
SPRING LAKE MAINTENANCE
COMMUNITY FACILITIES DISTRICT**

**LOCAL AGENCY SPECIAL
TAX ACCOUNTABILITY REPORT
FISCAL YEAR ENDED JUNE 30, 2018**

KOPPEL & GRUBER
PUBLIC FINANCE

334 VIA VERA CRUZ, SUITE 256
SAN MARCOS
CALIFORNIA 92078

T. 760.510.0290
F. 760.510.0288

City of Woodland

Paul Navazio, City Manager
Kimberly McKinney, Finance Officer
Adam Devlin, Senior Accountant

300 First Street
Woodland, California 95695
T. 530.661.5849
F. 530.661.5848

Special Tax Administrator

Koppel & Gruber Public Finance
Scott Koppel and Lyn Gruber
334 Via Vera Cruz, Suite 256
San Marcos, California 92078
T. 760.510.0290
F. 760.510.0288

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BACKGROUND

The Local Agency Special Tax and Bond Accountability Act (“Accountability Act”) was enacted by California State Legislature through Senate Bill 165 to provide accountability measures for any local special tax and/or bond measure subject to voter approval on or after January 1, 2001. According to the requirements of the Accountability Act (*Sections 50075.1 and 53410 of the Government Code of the State of California*), an annual report must be filed by the local agency levying a special tax and/or issuing a bond measure by January 1, commencing January 1, 2002 and each year thereafter and shall contain a description of the following:

- (1) The amount of funds collected and expended.
- (2) The status of any project required or authorized to be funded by the special tax measure.

This report (“Accountability Report”) is being prepared for the Spring Lake Maintenance Community Facilities District (“CFD”) of the City of Woodland (“City”) for fiscal year ended June 30, 2018 pursuant to and in accordance with the requirements outlined in the Accountability Act.

I. SUMMARY

On March 22, 2005, the City Council (“Council”) of the City established the CFD pursuant to the provisions of the Mello-Roos Community Facilities Act of 1982, as amended (the “Act”). The CFD is authorized to levy a special tax to generally provide for sports park facilities maintenance services and incidental expenses related to the administration of the CFD. Sports Park Maintenance costs that can be funded by the CFD include, but are not limited to athletic fields, snack bars, restrooms, multi-use paths, parking lots and park roadways. The authorized costs of services include the costs of labor, material, administration, personnel, equipment and utilities.

Since the time of formation, three areas have been annexed into the CFD. The annexations are described as follows:

Annexation No. 1 was adopted by City Council June, 2, 2015. Made up of three parcels encompassing 44.98 acres, Annexation No. 1 is located west of Harry Lorenzo Ave. and North of Farmers Central Rd. Annexation No. 1 was one of the designated Future Annexation Areas and is projected to contain 176 single family homes.

Annexation No. 2 was adopted by City Council September 5, 2017. Made up of one parcel encompassing 27.30 acres, Annexation No. 2 is located west of Harry Lorenzo Ave. and North of Patriot Way and Annexation No. 1. Annexation No. 2 was one of the designated Future Annexation Areas and is now Tract 5091 with 111 Single Family Residential lots.

Annexation No. 3 was adopted by City Council October 3, 2017. Made up of three parcels encompassing 75.57 acres, Annexation No. 3 is located east of County Road 101 and south of Marston Drive. Annexation No. 3 was one of the designated Future Annexation Areas and is expected to have 190 Residential units.

II. SPECIAL TAX COLLECTIONS & EXPENDITURES

A separate account is held by the City for the deposit of special taxes levied by the CFD and for the disbursement of authorized expenditures. The table below provides a description of the collection of special taxes and the funds disbursed for authorized expenditures in fiscal year 2017/2018.

Description	Amount
Beginning Balance as of July 1, 2017	\$152,534.36
<u>Revenues</u>	
Special Tax Collections	\$450,739.60
Interest Accrued	\$1,755.67
General Fund Transfer	\$0.00
<i>Subtotal Revenues</i>	<i>\$452,495.27</i>
<u>Expenditures</u>	
Administrative Expenses	(\$12,294.84)
Park Maintenance Costs	(\$444,204.73)
General Fund ¹	(\$4,222.00)
<i>Subtotal Expenditures</i>	<i>(\$460,721.57)</i>
Ending Balance as of June 30, 2018	\$144,308.06

¹ Fund transfer, contribution to Debt Service.

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TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: I.9.
SUBJECT: Approval of Final Map 5141, Downtown Suites, and Related Subdivision Improvement Agreement

Recommendation for Action: Staff recommends that the City Council adopt Resolution No. _____, a Resolution of the City Council 1) approving Final Map 5141 SZ Downtown Partners; 2) approving the related Subdivision Improvement Agreement and authorizing the City Manager to sign on behalf of the City; and 3) authorizing the City Manager to approve amendments to the Subdivision Improvement Agreement for the extension of time.

Staff Contact:

Bruce D. Pollard, (530) 661-5820, bruce.pollard@cityofwoodland.org

Fiscal Impact:

This project's processing costs were covered by fees. In addition, at build-out, the 14 lots are estimated to generate approximately \$300,000 in development impact fees. There is no impact to the General Fund.

Background:

The City approved the tentative map for 14 Single family lots on March 1, 2018. The 14 lots are located at the corner of Lincoln Avenue and Third Street. The project is redeveloping an existing site.

SZ Downtown Partners, has completed all conditions required the Tentative Map, and is requesting that the City approve the 14 lot Final Subdivision Map (SM) No.5141 SZ Downtown Partners; and the associated Subdivision Improvement Agreement.

Discussion:

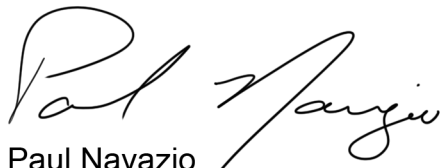
The Owner has met or completed his conditions of approval. The final map, improvement plans, and related documents have been reviewed by staff and found to be technically correct and consistent with the tentative map.

Conclusion:

Staff recommends that the City Council adopt Resolution No. _____, a Resolution of the City Council 1) approving Final Map 5141 SZ Downtown Partners; 2) approving the related Subdivision Improvement Agreement and authorizing the City Manager to sign on behalf of the City; and 3) authorizing the City Manager to approve amendments to the Subdivision Improvement Agreement for the extension of time.

Prepared by: Bruce D. Pollard, Senior Civil Engineer

Reviewed by: Brent Meyer, City Engineer



Paul Navazio
City Manager

Attachments:

1. Resolution
2. Agreement
3. Map

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WOODLAND
APPROVING FINAL MAP 5141, SZ DOWNTOWN PARTNERS, AND A SUBDIVISION
IMPROVEMENT AGREEMENT WITH SZ DOWNTOWN PARTNERS LLC FOR
CONSTRUCTION OF SUBDIVISION IMPROVEMENTS**

WHEREAS, City Planning Commission approved tentative map on March 1, 2018 with map conditions of approval and an associated Development Agreement; and

WHEREAS, SZ Downtown Partners LLC, has completed the conditions of approval and has filed a final map for 14 lots; and

WHEREAS, the City of Woodland has reviewed the map, improvement plans, and related documents and determined that it is technically correct, and consistent with the tentative map and conditions of approval; and

WHEREAS, the City Council wishes to approve Final Map 5141, SZ Downtown Partners, and the associated Sub Division Improvement Agreement through the adoption of this Resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WOODLAND AS FOLLOWS:

Section 1. The City Council hereby approves Final Map 5141, SZ Downtown Partners; and directs the City Clerk to sign the map and for the City Engineer to forward the map to the County Tax Collector.

Section 2. The City Council hereby approves the Subdivision Improvement Agreement. The City Manager is hereby authorized and directed to sign the Agreement, and the City Manager is authorized to amend the agreement and to grant time extensions to the agreement if necessary.

Section 3. A copy of the Subdivision Improvement Agreement is available and on file in the City Clerk's office, and is incorporated herein by reference and made a part of this Resolution.

PASSED AND ADOPTED this _____ day of _____ 2018, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Enrique Fernandez, Mayor

ATTEST:

Ana B. Gonzalez, City Clerk

RECORDED AT THE REQUEST OF
AND WHEN RECORDED RETURN TO:

CITY OF WOODLAND
300 First Street
Woodland, California 95695
ATTN: City Clerk

(Exempt from Filing Fees – Government Code § 6103)

SPACE ABOVE THIS LINE FOR RECORDER'S USE

SUBDIVISION IMPROVEMENT AGREEMENT
FOR COMPLETION OF PUBLIC IMPROVEMENTS
SUBDIVISION MAP NO. 5141

between

THE CITY OF WOODLAND
a California municipal corporation

and

SZ DOWNTOWN PARTNERS, LLC
A California Limited Liability Company

SUBDIVISION IMPROVEMENT AGREEMENT
FOR COMPLETION OF PUBLIC IMPROVEMENTS

SUBDIVISION MAP NO. 5141

I. PARTIES AND DATE

This Subdivision Improvement Agreement for the Completion of Public Improvements (“Agreement”) is entered into as of this ____ day of _____, 2018, by and between the CITY OF WOODLAND, a California municipal corporation (“City”) and **SZ DOWNTOWN PARTNERS, LLC, a California limited liability corporation**, with its principal office located at **1310 West Street, Woodland, CA 95695** (“Developer”). City and Developer are sometimes hereinafter individually referred to as “Party” and hereinafter collectively referred to as the “Parties.”

II. RECITALS

A. Developer’s tentative subdivision map for real property located within City, a legal description of which is attached hereto as Exhibit “A” (“Property”), was conditionally approved by the Woodland City Council on April 3, 2018. The tentative subdivision map is identified in City records as Subdivision Map No. 5141 (“Map”).

B. Developer is the owner of Property, and Developer proposes to do and perform certain work of improvement thereon as set forth in this Agreement.

C. Developer has submitted and requests approval of Final Map No.5141, which relates, in whole or in part, to the subdivision proposed by Developer’s Map for the Property.

D. Developer has not completed all of the work or made all of the public improvements required by Chapter 21 of the Woodland Municipal Code, the Subdivision Map Act (California Government Code Section 66410, et seq.) (“Map Act”), the conditions of approval for the Map, or other ordinances, resolutions, or policies of City requiring construction of improvements in conjunction with the subdivision of land.

E. Pursuant to Chapter 21 of the Woodland Municipal Code and the applicable provisions of the Map Act, Developer and City enter into this Agreement for the timely construction and completion of the public improvements and the furnishing of the security therefor, acceptable to the City Engineer and City Attorney, for the Map.

F. Developer's execution of this Agreement and the provision of the security are made in consideration of City's approval of the final map for the Property.

III. TERMS

1.0 Effectiveness. This Agreement shall not be effective unless and until all four of the following conditions are satisfied: (a) Developer provides City with security of the type and in the amounts required by this Agreement; (b) Developer executes and records this Agreement in the Recorder's Office of the County of Yolo; (c) the City Council of the City of Woodland ("City Council") approves the final map for the Property; and (d) Developer records the final map for the Property in the Recorder's Office of the County of Yolo. If any of the above described conditions are not satisfied, this Agreement shall automatically terminate without need of further action by either City or Developer, and Developer may not thereafter record the final map for the Property.

1.1 Definitions. For purposes of enforcing this Agreement, the term "City" shall include, but shall not be limited to, City Council, Public Works Director, City Engineer, Community Development Director, Building Official, or any of their authorized representatives. City shall have the sole and absolute discretion to determine which public body, public official, or public employee may act on behalf of City for any particular purpose.

2.0 Public Improvements. Developer shall construct or have constructed at its own cost, expense, and liability all improvements required by City as part of the approval of the Map, including, but not limited to, all grading, roads, paving, curbs and gutters, pathways, storm drains, sanitary sewers, utilities, drainage facilities, traffic controls, landscaping, street lights, and all other required facilities as shown in detail on the plans, profiles, and specifications which have been prepared by or on behalf of Developer for the Map ("Public Improvements"). The Public Improvements are more specifically described in Exhibit "B," which is attached hereto and incorporated herein by this reference. Construction of the Public Improvements shall include any transitions and/or other incidental work deemed necessary for drainage or public safety. Developer shall be responsible for the replacement, relocation, or removal of any component of any utility system or public improvement in conflict with the construction or installation of the Public Improvements. Such replacement, relocation, or removal shall be performed to the complete satisfaction of the City Engineer and the owner of such utility system or public improvement. Developer further promises and agrees to provide all equipment, tools, materials, labor, tests, design work, and engineering services necessary or required by City to fully and adequately complete the Public Improvements.

2.1 Prior Partial Construction of Public Improvements. Subject to Section 2.3, herein, where construction of any Public Improvements has been partially completed prior to the execution of this Agreement, Developer agrees to complete such Public Improvements or ensure their completion in accordance with this Agreement.

2.2 Permits; Notices; Utility Statements. Prior to commencing any work, Developer shall, at its sole cost, expense, and liability, obtain all necessary permits and licenses

and give all necessary and incidental notices required for the lawful construction of the Public Improvements and performance of Developer's obligations under this Agreement. Developer shall conduct the work in full compliance with the regulations, rules, and other requirements contained in any permit or license issued to Developer. Prior to commencing any work, Developer shall file a written statement with the City Clerk and the City Engineer, signed by Developer and each utility that will provide utility service to the Property, attesting that Developer has made all deposits legally required by the utility for the extension and provision of utility service to the Property.

2.3 Pre-approval of Plans and Specifications. Developer is prohibited from commencing work on any Public Improvement until all plans, specifications, estimates, and bonds for such Public Improvement have been submitted to and approved by the City Engineer, or his/her authorized designee. Approval by the City Engineer shall not relieve Developer from ensuring that all Public Improvements conform with all other requirements and standards set forth in this Agreement.

2.4 Quality of Work; Compliance With Laws and Codes. The construction plans and specifications for the Public Improvements shall be prepared in accordance with all applicable federal, state, and local laws, ordinances, regulations, codes, standards, and other requirements. The Public Improvements shall be completed in accordance with all approved maps, conditions, plans, specifications, standard drawings, and special amendments thereto on file with City, as well as all applicable federal, state, and local laws, ordinances, regulations, codes, standards, and other requirements applicable at the time work is actually commenced.

2.5 Standard of Performance. Developer and its contractors, if any, shall perform all work required to construct the Public Improvements under this Agreement in a skillful and workmanlike manner, and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Developer represents and maintains that it or its contractors shall be skilled in the professional calling necessary to perform the work. Developer warrants that all of its employees and contractors shall have sufficient skill and experience to perform the work assigned to them, and that they shall have all licenses, permits, qualifications, and approvals of whatever nature that are legally required to perform the work, and that such licenses, permits, qualifications, and approvals shall be maintained throughout the term of this Agreement.

2.6 Alterations to Improvements. The Public Improvements in Exhibit "B" are understood to be only a general designation of the work and improvements to be done, and not a binding description thereof. All work shall be done and improvements made and completed as shown on approved plans and specifications, and any subsequent alterations thereto. If during the course of construction and installation of the Public Improvements it is determined that the public interest requires alterations in the Public Improvements, Developer shall undertake such design and construction changes as may be reasonably required by City. Any and all alterations in the plans and specifications and the Public Improvements to be completed may be accomplished without giving prior notice thereof to Developer's surety for this Agreement.

2.7 Superintendence by Developer. Developer shall require each contractor and subcontractor to have a competent foreperson on the job at all times when that contractor or subcontractor, or any employee or agent thereof, is performing work on the Public Improvements. Before starting work on the Public Improvements, each contractor and subcontractor shall submit in writing the name of the proposed foreperson, who shall be subject to the review and approval of City. Following approval by City, each foreperson shall be present at the work site at all times that any work is in progress and at any time that any employee of the contractor or subcontractor is present at the work site. The Developer shall employ a competent construction manager that is responsible for the entire work. Each contractor or subcontractor shall contractually report to the construction manager, either directly or through a subcontract. At a minimum, the construction manager shall be onsite 2-3 times/week and will be available to attend weekly jobsite meetings with the City. The construction manager shall be immediately available by phone during hours when construction is in progress and shall be available in person within two hours when requested by the City. The construction manager shall coordinate the work such that construction and the associated inspection happen in an efficient manner. Should a contractor or subcontractor desire to change its foreperson, it shall provide the information specified above and obtain City's prior written approval. City, in its sole and absolute discretion, may require any contractor or subcontractor to replace its foreperson provided that City gives the contractor or subcontractor at least forty-eight hours written notice.

Developer shall, at all times, enforce strict discipline and good order among its employees and those of its subcontractors and shall not employ any unfit person or anyone not skilled in the assigned task. If any person employed by, the developer, a contractor or subcontractor fails or refuses to carry out the directions of the City or appears to the City, in its sole and absolute discretion, to be incompetent or to act in a disorderly or improper manner, such person shall be removed from the project immediately upon request by the City, and such person shall not again be employed on the work. Such removal shall not be the basis for any claim of compensation or damages against the City.

In addition, Developer shall maintain an office with a telephone, and Developer or a person authorized to make decisions and to act on Developer's behalf in Developer's absence shall be available to be on the job within three (3) hours of being called at such office by the City, during the hours of 9:00 a.m. through 5:00 p.m., Monday through Friday, or any other day or time when work is being performed on the Public Improvements. Developer shall also provide City with a telephone number, at which Developer, or its representative, shall be available twenty-four (24) hours a day in the event of an emergency.

3.0 Maintenance of Public Improvements and Landscaping Prior to Acceptance by City. City shall not be responsible or liable for the maintenance or care of the Public Improvements until City approves and accepts them. City shall exercise no control over the Public Improvements until accepted. Any use by any person of the Public Improvements, or any portion thereof, shall be at the sole and exclusive risk of Developer at all times prior to City's acceptance of the Public Improvements. Developer shall maintain all the Public Improvements in a state of good repair until

they are completed by Developer and approved and accepted by City, and until the security for the performance of this Agreement is released.

Maintenance shall include, but shall not be limited to: repair of pavement, curbs, gutters, sidewalks, signals, parkways, water mains, and sewers; maintaining all landscaping in a vigorous and thriving condition reasonably acceptable to City; removal of debris from sewers and storm drains; and sweeping, repairing, and maintaining in good and safe condition all streets and street improvements. Developer shall cause the sweeping of streets to occur weekly at a minimum. Developer shall perform additional street sweeping work as necessary depending on construction activities or as required by, and at the direction of, the City Engineer. It shall be Developer's responsibility to initiate all maintenance work, but if it shall fail to do so, it shall promptly perform such maintenance work when notified to do so by City. If Developer fails to properly prosecute its maintenance obligation under this Section, City may do all work necessary for such maintenance and the cost thereof shall be the responsibility of Developer and its surety under this Agreement. City shall not be responsible or liable for any damages or injury of any nature in any way related to or caused by the Public Improvements or their condition prior to acceptance.

4.0 Construction Schedule. Unless extended pursuant to this Section of this Agreement, Developer shall fully and adequately complete or have completed the Public Improvements by one year from the date of City Council approval of the final map or before any certificates of occupancy are issued for any lots within the Property, whichever is earlier. At least fifteen (15) days prior to the commencement of such work, Developer shall notify the City Engineer in writing of the date fixed by Developer for commencement of the work.

4.1 Extensions. Time is of the essence with regard to this Agreement. The City Council may, in its sole and absolute discretion, provide Developer with additional time within which to complete the Public Improvements. Requests for extension of time shall be in writing and shall be delivered to City in the manner hereinafter specified for service of notices. An extension of time, if any, shall be granted only in writing, and an oral extension shall not be valid or binding on City.

It is understood that by providing the security required by this Agreement, Developer and its surety consent in advance to any extension of time as may be given by City to Developer and waive any and all right to notice of such extension(s). Developer's acceptance of an extension of time granted by City shall constitute a waiver by Developer and its surety of all defenses of laches, estoppel, statutes of limitations, and other limitations of action in any action or proceeding filed by City following the date on which the Public Improvements were to have been completed hereunder.

In addition, as consideration for granting such extension to Developer, City reserves the right to review the provisions of this Agreement, including, but not limited to, the construction standards, the cost estimates approved by City, and the sufficiency of the improvement security provided by Developer, and to require adjustments thereto when warranted according to City's reasonable discretion.

4.2 Accrual of Limitations Period. Any limitations period provided by law related to breach of this Agreement or the terms thereof shall not accrue until Developer has provided the City Engineer with written notice of Developer's intent to abandon or otherwise not complete required or agreed upon Public Improvements.

5.0 Grading. Developer agrees that any and all grading done or to be done in conjunction with construction of the Public Improvements or development of the Property shall conform to all federal, state, and local laws, ordinances, regulations, and other requirements including, without limitation, City's grading regulations, the National Pollutant Discharge Elimination Systems (NPDES), and stormwater regulations thereunder as administered by the State Water Resources Control Board and Regional Water Quality Control Boards. In order to prevent damage to the Public Improvements by improper drainage or other hazards, the grading shall be completed in accordance with the time schedule for completion of the Public Improvements established by this Agreement, and prior to City's approval and acceptance of the Public Improvements and release of the Security as set forth in this Agreement. Developer further agrees that the indemnification as set forth in this Agreement shall extend to and include any and all grading contemplated by this Agreement, including but not limited to, any partial or rough grading work.

6.0 Utilities. Developer shall assume all costs for and shall provide utility services, including water, power, gas, and telephone service to serve each parcel, lot, or unit of land within the Property in accordance with all applicable federal, state, and local laws, rules, and regulations, including, but not limited to, the regulations, schedules, and fees of the utilities or agencies providing such services. Except for commercial or industrial properties, Developer shall also provide cable television facilities to serve each parcel, lot, or unit of land in accordance with all applicable federal, state, and local laws, rules, and regulations, including, but not limited to, the requirements of the cable company possessing a valid franchise with City to provide such service within City's jurisdictional limits. All utilities shall be installed underground, unless otherwise approved by the City Council or the Planning Commission of the City of Woodland, or by any other state or federal laws or regulations.

7.0 Fees and Charges. Developer shall, at its sole cost, expense, and liability, pay all fees, charges, and taxes arising out of construction of the Public Improvements, including, but not limited to fees for the checking, filing, and processing of improvement plans and specifications and for inspecting the construction of the Public Improvements. These fees must be paid in full prior to approval of the final map and improvement plans. The fees referred to above are not necessarily the only City fees, charges, or other costs that have been or will be imposed on the subdivision and its development, and this Agreement shall in no way exonerate or relieve Developer from paying such other applicable fees, charges, and/or costs.

8.0 City Inspection of Public Improvements. Developer shall, at its sole cost, expense, and liability, and at all times during construction of the Public Improvements, maintain reasonable

and safe facilities and provide safe access for inspection by City of the Public Improvements and areas where construction of the Public Improvements is occurring or will occur.

9.0 Default; Notice; Remedies.

9.1 Notice. If Developer neglects, refuses, or fails to fulfill or timely complete any obligation, term, or condition of this Agreement, or if City determines there is a violation of any federal, state, or local law, ordinance, regulation, code, standard, or other requirement, City may at any time thereafter declare Developer to be in default or violation of this Agreement and make written demand upon Developer or its surety, or both, to immediately remedy the default or violation ("Notice"). Developer shall substantially commence the work required to remedy the default or violation within ten (10) days of the Notice. If the default or violation constitutes an immediate threat to the public health, safety, or welfare, City may provide the Notice verbally, and Developer shall substantially commence the required work within twenty-four (24) hours thereof. Immediately upon City's issuance of the Notice, Developer and its surety shall be liable to City for all costs of construction and installation of the Public Improvements and all other administrative costs and expenses.

9.2 Failure to Remedy; City Action. If the work required to remedy the noticed default or violation is not diligently prosecuted to a completion acceptable to City within the time frame contained in the Notice, City may complete all remaining work, arrange for the completion of all remaining work, and/or conduct such remedial activity as in its sole and absolute discretion it believes is required to remedy the default or violation. All such work or remedial activity shall be at the sole and absolute cost, expense, and liability of Developer and its surety, without the necessity of giving any further notice to Developer or surety. City's right to take such actions shall in no way be limited by the fact that Developer or its surety may have constructed any, or none, of the required or agreed upon Public Improvements at the time of City's demand for performance. In the event City elects to complete or arrange for completion of the remaining work and improvements, City may require all work by Developer or its surety to cease in order to allow adequate coordination by City. Notwithstanding the foregoing, if conditions precedent for reversion to acreage can be met and if the interests of City will not be prejudiced thereby, City may also process a reversion to acreage and thereafter recover from Developer or its surety the full cost and expense incurred.

9.3 Other Remedies. No action by City pursuant to this Section of this Agreement shall prohibit City from exercising any other right or pursuing any other legal or equitable remedy available under this Agreement or any federal, state, or local law. City may exercise its rights and remedies independently or cumulatively, and City may pursue inconsistent remedies. City may institute an action for damages, injunctive relief, or specific performance.

9.4 Administrative Costs. If Developer fails to construct and install all or any part of the Public Improvements within the time required by this Agreement, or if Developer fails to comply with any other obligation contained herein, Developer and its surety shall be jointly and severally liable to City for all administrative expenses, fees, and costs, including reasonable

attorney's fees and costs, incurred in obtaining compliance with this Agreement or in processing any legal action or for any other remedies permitted by law.

10.0 Acceptance of Improvements; As-Built or Record Drawings. If the Public Improvements are properly completed by Developer and approved by the City Engineer, and if they comply with all applicable federal, state and local laws, ordinances, regulations, codes, standards, and other requirements, the City Council shall be authorized to accept the Public Improvements. The City Council may, in its sole and absolute discretion, accept fully completed portions of the Public Improvements prior to such time as all of the Public Improvements are complete, which shall not release or modify Developer's obligation to complete the remainder of the Public Improvements within the time required by this Agreement. Upon the total or partial acceptance of the Public Improvements by City, the City Clerk shall file with the Recorder's Office of the County of Yolo, a notice of completion for the accepted Public Improvements in accordance with California Civil Code Section 9204, at which time the accepted Public Improvements shall become the sole and exclusive property of City without payment therefor.

Title to and ownership of the Public Improvements constructed under this Agreement shall vest absolutely in City upon completion and acceptance in writing of such Public Improvements by City.

Issuance by City of occupancy permits for any buildings or structures located on the Property shall not be construed in any manner to constitute City's acceptance or approval of any Public Improvements. Notwithstanding the foregoing, City may not accept any Public Improvements unless and until Developer provides one (1) set of "as-built" or record drawings or plans to the City Engineer for all such Public Improvements. The drawings shall be certified and shall reflect the condition of the Public Improvements as constructed, with all changes incorporated therein.

11.0 Security; Surety Bonds. Prior to execution of this Agreement, Developer shall provide City with surety bonds in the amounts and under the terms set forth below ("Security"). Nothing in this Section is intended to prevent City, in its sole discretion, from requiring Developer to submit, or prevent Developer from submitting, security in a form other than bonds that may be allowed under California Government Code Section 66499, *et seq.* and Chapter 21 of the Woodland Municipal Code, and acceptable to City. The amount of the Security shall be based on the City Engineer's approximation of the actual cost to construct the Public Improvements, including the replacement cost for all public landscaping ("Estimated Costs"). If City determines, in its sole and absolute discretion, that the Estimated Costs have changed, Developer shall adjust the Security in the amount requested by City. Developer's compliance with this Section shall in no way limit or modify Developer's indemnification obligation under this Agreement.

11.1 Faithful Performance Bond. To guarantee the faithful performance of the Public Improvements and all the provisions of this Agreement, to protect City if Developer is in default as set forth in Section 9.0, *et seq.*, of this Agreement, and to secure Developer's one-year guarantee and warranty of the Public Improvements, including the maintenance of all landscaping

in a vigorous and thriving condition, Developer shall provide City a faithful performance bond in the amount of **Eighty-Four Thousand Eleven Dollars (\$84,011.00)**, which sum shall be not less than one hundred percent (100%) of the Estimated Costs. The City may, in its sole and absolute discretion, partially release a portion or portions of the security provided under this section as the Public Improvements are accepted by City, as provided under Section 13.0 herein, provided that Developer is not in default on any provision of this Agreement or condition of approval for the Map, and the total remaining security is not less than twenty-five percent (25%) of the Estimated Costs. All security provided under this section shall be released at the end of the Warranty period (as defined below), or any extension thereof as provided in Section 13.3 of this Agreement, provided that Developer is not in default on any provision of this Agreement or condition of approval for the Map.

11.2 Labor and Material Bond. To secure payment to the contractors, subcontractors, laborers, material men and other persons furnishing labor, materials, or equipment for performance of the Public Improvements and this Agreement, Developer shall provide City a labor and materials bond in the amount of **Forty-Two Thousand Five Dollars (\$42,005.00)**, which sum shall not be less than fifty percent (50%) of the Estimated Costs. The security provided under this subsection may be released by written authorization of the City Engineer after one (1) year or within the time limits established in California Government Code section 66499.7 from the date City accepts the final Public Improvements at the discretion of City. The amount of such security shall be reduced by the total of all stop notice or mechanic's lien claims of which City is aware, plus an amount equal to twenty percent (20%) of such claims for reimbursement of City's anticipated administrative and legal expenses arising out of such claims.

11.3 Guarantee and Warranty Bond. Developer hereby guarantees and warrants all Public Improvements against any defective work or labor done, or defective materials furnished in the performance of this Agreement, including the maintenance of all public landscaping within the Property in a vigorous and thriving condition reasonably acceptable to City, for a period of one (1) year following completion of the work and acceptance by City ("Warranty"). During the Warranty, Developer shall repair, replace, or reconstruct any defective or otherwise unsatisfactory portion of the Public Improvements, in accordance with the current ordinances, resolutions, regulations, codes, standards, or other requirements of City, and to the approval of the City Engineer but shall not be responsible for routine maintenance after acceptance by City. All repairs, replacements, or reconstruction during the Warranty shall be at the sole cost, expense, and liability of Developer and its surety. As to any Public Improvements that have been repaired, replaced, or reconstructed during the Warranty, Developer and its surety hereby agree to extend the Warranty for an additional one (1) year period following City's acceptance of the repaired, replaced, or reconstructed Public Improvements. Nothing herein shall relieve Developer from any other liability it may have under federal, state, or local law to repair, replace, or reconstruct any Public Improvement following expiration of the Warranty or any extension thereof. Developer's warranty obligation under this Section shall survive the expiration or termination of this Agreement.

Prior to execution of this Agreement, Developer shall provide City with an irrevocable guarantee and warranty bond in the amount of ten percent (10%) of the Estimated

Costs of the Work to guarantee and warrant the Work, for a period of one year following its completion and acceptance, against any defective work or labor done, or defective materials furnished, as required by California Government Code Section 66499.3(d). Any unused portion of the guarantee and warranty security shall be released one year after acceptance of the required improvements by the City Council.

11.4 Additional Requirements. The surety for any surety bonds provided as Security shall have a current A.M. Best's rating of no less than A:VIII, shall be authorized to do business in the State of California, and shall be satisfactory to City. As part of the obligation secured by the Security and in addition to the face amount of the Security, Developer or its surety shall secure the costs and reasonable expenses and fees, including reasonable attorneys' fees and costs, incurred by City in enforcing the obligations of this Agreement. Developer and its surety stipulate and agree that no change, extension of time, alteration, or addition to the terms of this Agreement, the Public Improvements, or the plans and specifications for the Public Improvements shall in any way affect its obligation on the Security.

11.5 Evidence and Incorporation of Security. Evidence of the Security shall be provided on the forms set forth in Exhibit "C," unless other forms are deemed acceptable by the City Engineer and the City Attorney, and when such forms are completed to the satisfaction of City, the forms and evidence of the Security shall be attached hereto as Exhibit "C" and incorporated herein by this reference.

12.0 Lien. To secure the timely performance of Developer's obligations under this Agreement, including those obligations for which security has been provided pursuant to this Agreement, Developer hereby creates in favor of City a lien against all portions of the Property not dedicated to City or some other governmental agency for a public purpose. As to Developer's default on those obligations for which security has been provided pursuant to this Agreement, City shall first attempt to collect against such security prior to exercising its rights as a contract lienholder under this Section.

13.0 Indemnification. Developer shall defend (with counsel reasonably satisfactory to the City Attorney), indemnify, and hold harmless City, its elected officials, officers, employees, agents, and volunteers from any and all actual or alleged claims, demands, causes of action, liability, loss, damage, or injury, to property or persons, including wrongful death, whether imposed by a court of law or by administrative action of any federal, state, or local governmental body or agency, arising out of or incident to any acts, omissions, negligence, or willful misconduct of Developer, its personnel, employees, agents, or contractors in connection with or arising out of construction or maintenance of the Public Improvements, or performance of this Agreement. This indemnification includes, without limitation, the payment of all penalties, fines, judgments, awards, decrees, attorneys' fees, and related costs or expenses, and the reimbursement of City, its elected officials, officers, employees, and/or agents for all legal expenses and costs incurred by each of them. This indemnification excludes only such portion of any claim, demand, cause of action, liability, loss, damage, penalty, fine, or injury, to property or persons, including wrongful death, which is caused solely and exclusively by the negligence or willful misconduct of City as

determined by a court or administrative body of competent jurisdiction. Developer's obligation to indemnify shall survive the expiration or termination of this Agreement and shall not be restricted to insurance proceeds, if any, received by Agency, its elected officials, officers, employees, agents, or volunteers.

14.0 Insurance.

14.1 Types; Amounts. Developer shall procure and maintain, and shall require its contractors and subcontractors to procure and maintain, during construction of any Public Improvement pursuant to this Agreement, insurance of the types and in the amounts described below ("Required Insurance") and without limiting the indemnity provisions of this Agreement. If any of the Required Insurance contains a general aggregate limit, such insurance shall apply separately to this Agreement or be no less than three times the specified occurrence limit. For purposes of this Section 14.0, et seq., the "indemnified parties" shall mean City, its elected officials, officers, employees, agents, and volunteers, as described in this Agreement. The Required Insurance shall contain standard separation of insureds provisions, and shall contain no special limitations on the scope of its protection to City, its elected officials, officers, employees, agents, and volunteers.

14.1.1 Commercial General Liability. Developer, its contractors and subcontractors shall procure and maintain Commercial General Liability Insurance that affords coverage at least as broad as the latest version of Insurance Services Office "occurrence" form CG 0001, with minimum limits of at least One Million Dollars (\$1,000,000.00) per occurrence, and if written with an aggregate, the aggregate shall be double the per occurrence limit. Defense costs shall be paid in addition to the limits. The policy shall contain no endorsements or provisions limiting coverage for (1) products and completed operations; (2) contractual liability; (3) third party action over claims; (4) cross liability exclusion for claims or suits by one insured against another; or (5) explosion, collapse, or underground hazard (XCU).

14.1.2 Automobile Liability. Developer and its contractors and subcontractors shall procure and maintain automobile liability insurance with coverage at least as broad as Insurance Services Office Form CA 0001 covering "Any Auto" (Symbol 1) and minimum limits of One Million Dollars (\$1,000,000.000) each accident. Such insurance shall include coverage for the ownership, operation, maintenance, use, loading, or unloading of any vehicle owned, leased, hired, or borrowed by the insured or for which the insured is responsible. If Developer does not own any company vehicles and if requested by City, this requirement may be satisfied by providing a non-owned auto endorsement to the Commercial General Liability policy.

14.1.3 Workers' Compensation. Developer, its contractors and subcontractors shall procure and maintain workers' compensation insurance with limits as required by the Labor Code of the State of California and Employers' Liability Insurance of not less than One Million Dollars (\$1,000,000.00) per accident for bodily injury and disease.

14.1.4 Professional Liability. If applicable to this Agreement and required by City, for any consultant or other professional who will engineer or design the Public Improvements, professional liability insurance for errors and omissions with limits not less than One Million Dollars (\$1,000,000.00) per occurrence, shall be procured and maintained for a period of three (3) years following completion of the Public Improvements and shall specifically include all work to be performed under the Agreement. If coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the initial Agreement, and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination of this Agreement.

14.2 Deductibles. Any deductibles or self-insured retentions must be approved by City in writing and shall protect the indemnified parties in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention.

14.3 Certificates; Verification. Developer and its contractors and subcontractors shall furnish City with original certificates of insurance and endorsements effecting coverage for the Required Insurance. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements must be received and approved by City prior to the execution of this Agreement and before work pursuant to this Agreement can begin. City reserves the right to require complete, certified copies of all required insurance policies at any time.

14.4 Insurer Rating. Unless approved in writing by City, the insurers for all Required Insurance shall have a current A.M. Best rating of at least A:VIII, shall be authorized to do business in the State of California, and shall be satisfactory to City.

14.5 Endorsements.

14.5.1 The Commercial General Liability, Automobile Liability, and Contractors Pollution Liability policies, if the latter is required by City, shall be endorsed as follows:

Additional Insured: The indemnified parties shall be additional insureds with regard to liability and defense of suits or claims arising out of the performance of this Agreement. The “Additional Insured Endorsement” shall be on a form similar to Insurance Services Office’s Endorsement form CG 2010 and contain no other modifications to the policy.

Primary Insurance: This insurance shall be primary and any other insurance, deductible, or self-insurance maintained by the indemnified parties shall not contribute with this primary insurance.

Severability: In the event one insured, whether named or additional, incurs liability to any other of the insureds, whether named or additional, the policy shall cover the insured against whom the claim is made or may be made in the same manner as if separate policies had been issued to each insured, except that the limits of insurance shall not be increased thereby.

Cancellation: The policy shall not be canceled or the coverage suspended, voided, reduced, or allowed to expire until a thirty (30) day prior written notice of cancellation has been served upon City, except ten (10) days prior written notice shall be allowed for non-payment of premium.

Duties: Any failure by the named insured to comply with report provisions of the policy or breaches or violations of warranties shall not affect coverage provided to the indemnified parties.

Applicability: That the coverage provided therein shall apply to the obligations assumed by Developer, its contractors or subcontractors under the indemnity provisions of this Agreement, unless the policy or policies contain a blanket form of contractual liability coverage.

14.5.2 The Workers' Compensation policy or policies required by this Agreement shall be endorsed as follows:

Waiver of Subrogation: A waiver of subrogation stating that the insurer waives all rights of subrogation against the indemnified parties.

Cancellation: The policy shall not be canceled or the coverage suspended, voided, reduced, or allowed to expire until a thirty (30) day prior written notice of cancellation has been served upon City, except ten (10) days prior written notice shall be allowed for non-payment of premium.

14.5.3 The Professional Liability policy or policies required by this Agreement, if required by City, shall be endorsed as follows:

Cancellation: The policy shall not be canceled or the coverage suspended, voided, reduced, or allowed to expire until a thirty (30) day prior written notice of cancellation has been served upon City, except ten (10) days prior written notice shall be allowed for non-payment of premium.

15.0 Signs and Advertising. Developer understands and agrees to City's ordinances, regulations, and requirements governing signs and advertising structures. Developer hereby agrees with and consents to the removal by City of all signs or other advertising structures erected, placed, or situated in violation of any City ordinance, regulation, or other requirement. Removal shall be at the expense of Developer. Developer shall indemnify and hold City free and harmless from any claim or demand arising out of or incident to signs, advertising structures, or their removal.

16.0 Relationship Between the Parties. The Parties hereby mutually agree that neither this Agreement, any map related to the Property, nor any other related entitlement, permit, or approval issued by City for the Property shall operate to create the relationship of partnership, joint venture, or agency between City and Developer. Developer's contractors and subcontractors are exclusively and solely under the control and dominion of Developer. Nothing herein shall be deemed to make Developer, its contractors, or its subcontractors an agent, contractor, or subcontractor of City.

17.0 General Provisions.

17.1 Authority to Enter Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.

17.2 Cooperation; Further Acts. The Parties shall fully cooperate with one another, and shall take any additional acts or sign any additional documents as may be necessary, appropriate, or convenient to attain the purposes of this Agreement.

17.3 Construction; References; Captions. It being agreed the Parties or their agents have participated in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days, or period for performance shall be deemed calendar days and not work days. All references to Developer include all personnel, employees, agents, and subcontractors of Developer, except as otherwise specified in this Agreement. All references to City include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content, or intent of this Agreement.

17.4 Notices. All notices, demands, invoices, and written communications shall be in writing and delivered to the following addresses or such other addresses as the Parties may designate by written notice:

CITY:

City of Woodland
300 First Street

DEVELOPER:

SZ Downtown Partners, LLC
1310 West Street

Woodland, CA 95695
Attn: City Engineer

Woodland, Ca 95695
Attn: Dave Snow

Depending upon the method of transmittal, notice shall be deemed received as follows: by facsimile, as of the date and time sent; by messenger, as of the date delivered; and by U.S. Mail first class postage prepaid, as of seventy-two (72) hours after deposit in the U.S. Mail.

17.5 Amendment; Modification. No supplement, modification, or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.

17.6 Waiver. City's failure to insist upon strict compliance with any provision of this Agreement or to exercise any right or privilege provided herein, or City's waiver of any breach of this Agreement, shall not relieve Developer of any of its obligations under this Agreement, whether of the same or similar type. The foregoing shall be true whether City's actions are intentional or unintentional. Developer agrees to waive, as a defense, counterclaim or set off, any and all defects, irregularities or deficiencies in the authorization, execution or performance of the Public Improvements or this Agreement, as well as the laws, rules, regulations, ordinances or resolutions of City with regards to the authorization, execution, or performance of the Public Improvements or this Agreement.

17.7 Assignment or Transfer of Agreement. Developer shall not assign, hypothecate, or transfer, either directly or by operation of law, this Agreement or any interest herein without prior written consent of City. Any attempt to do so shall be null and void, and any assignee, hypothecatee, or transferee shall acquire no right or interest by reason of such attempted assignment, hypothecation, or transfer. Unless specifically stated to the contrary in City's written consent, any assignment, hypothecation, or transfer shall not release or discharge Developer from any duty or responsibility under this Agreement. In the event that City consents in writing to such an assignment, any assignee, hypothecatee, or transferee shall expressly assume Developer's obligations hereunder by a written agreement in a form, and containing such security, as is reasonably acceptable to City.

The agreement, hypothecation, or transfer shall be to the satisfaction of the City Attorney and shall include provisions requiring the assignee to post bonds or submit another form of financial security, satisfactory to City and approved by the City Attorney, to guarantee construction of the Public Improvements. The agreement shall survive the recordation of the Final Map and shall be recorded against each of the proposed lots to inform successors and assigns of the required Public Improvements to be constructed and their time frame for construction.

Following any permitted assignment, hypothecation, or transfer of the Public Improvements as set forth in this Section, City shall release Developer from its obligations so assigned and shall release to Developer any bonds or other security posted to secure the Public Improvements so assigned; provided, however, that City shall not release any security or undertakings given to secure the performance of any of the Public Improvements not assigned, hypothecated, or transferred.

17.8 Binding Effect. Each and all of the covenants and conditions shall be binding on and shall inure to the benefit of the Parties, and their successors, heirs, personal representatives, or assigns. This Section shall not be construed as an authorization for any Party to assign any right or obligation.

17.9 No Third-Party Beneficiaries. There are no intended third-party beneficiaries of any right or obligation assumed by the Parties.

17.10 Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

17.11 Consent to Jurisdiction and Venue. This Agreement shall be construed in accordance with and governed by the laws of the State of California. Any legal action or proceeding brought to interpret or enforce this Agreement, or which in any way arises out of the Parties' activities undertaken pursuant to this Agreement, shall be filed and prosecuted in the appropriate California State Court in the County of Yolo, California. Each Party waives the benefit of any provision of state or federal law providing for a change of venue to any other court or jurisdiction including, without limitation, a change of venue based on the fact that a governmental entity is a party to the action or proceeding, or that a federal right or question is involved or alleged to be involved in the action or proceeding. Without limiting the generality of the foregoing waiver, Developer expressly waives any right to have venue transferred pursuant to California Code of Civil Procedure Section 394.

17.12 Attorneys' Fees and Costs. If any arbitration, lawsuit, or other legal action or proceeding is brought by one Party against the other Party in connection with this Agreement or the Property, the prevailing party, whether by final judgment or arbitration award, shall be entitled to and recover from the other party all costs and expenses incurred by the prevailing party, including actual attorneys' fees ("Costs"). Any judgment, order, or award entered in such legal action or proceeding shall contain a specific provision providing for the recovery of Costs. This Section shall survive the termination or expiration of this Agreement.

17.13 Acquisition and Dedication of Easements or Rights-of-Way. If any of the Public Improvements required by this Agreement are to be constructed on land not within the subdivision or an already-existing public right-of-way, no construction or installation shall be commenced before:

17.13.1 The irrevocable offer of dedication or conveyance to City of appropriate rights-of-way, easements, or other interests in real property, and appropriate authorization from the property owner to allow construction or installation of the Public Improvements or work; or

17.13.2 The issuance of an order of possession by a court of competent jurisdiction pursuant to California's Eminent Domain Law. Developer shall comply in all respects with any such order of possession.

Nothing in this paragraph 17.13 shall be construed as authorizing or granting an extension of time to Developer for completion of the Public Improvements.

17.14 Prevailing Wages. Developer has been alerted to the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. If the work to be performed under this Agreement by Developer is being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, Developer agrees to fully comply with such Prevailing Wage Laws. Developer shall defend, indemnify and hold the City, its officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It shall be mandatory upon the Developer and its contractors to comply with all California Labor Code provisions, which include but are not limited to prevailing wages (Labor Code Sections 1771, 1774 and 1775), employment of apprentices (Labor Code Section 1777.5), certified payroll records (Labor Code Section 1776), hours of labor (Labor Code Sections 1813 and 1815), public works contractor registration (Labor Code Sections 1725.5 and 1771.1) and debarment of contractors and subcontractors (Labor Code Sections 1777.1). It shall be the sole responsibility of Developer to determine whether to comply with Prevailing Wage Laws for any or all work required by this Agreement. As a material part of this Agreement, Developer agrees to assume all risk of liability arising from any decision not to comply with Prevailing Wage Laws for work required by this Agreement.

17.15 Counterparts. This Agreement may be executed in counterpart originals, which taken together, shall constitute one and the same instrument.

CITY OF WOODLAND

SZ DOWNTOWN PARTNERS, LLC

By: _____
Paul Navazio, City Manager

By: _____
Signature

Print Name

Title

ATTEST:

(Seal)

By: _____
Ana Gonzalez, City Clerk

By: _____
Signature

Print Name

Title

APPROVED AS TO FORM:

By: _____
Kara Ueda, City Attorney
Best Best & Krieger LLP

ACKNOWLEDGMENT

STATE OF CALIFORNIA)
) **ss.**
COUNTY OF)

On _____, before me, _____, the undersigned notary public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC

ACKNOWLEDGMENT

STATE OF CALIFORNIA)
) **ss.**
COUNTY OF)

On _____, before me, _____, the undersigned notary public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC

EXHIBIT “A”

LEGAL DESCRIPTION OF PROPERTY

**SUBDIVISION NO 5141 SZ DOWNTOWN PARTNERS, LLC
REAL PROPERTY IN THE CITY OF WOODLAND, COUNTY OF YOLO, STATE OF
CALIFORNIA, DESCRIBED AS FOLLOWS:**

APN: 006-571-011 and 006-571-012

A-1

EXHIBIT “B”

LIST OF PUBLIC IMPROVEMENTS

SUBDIVISION NO. 5141

Developer shall perform all work and furnish all materials necessary, in the opinion of the City Engineer and on his/her order, to complete the following Public Improvements in accordance with the plans and specifications on file with City or with any changes required or ordered by the City Engineer which, in his/her opinion, are necessary or required to complete this work.

Developer is required to perform the following Public Improvements under this Agreement:

Streets, Utilities, Lights, Signing, and appurtenances as shown on the Plans:

“Off-site Improvement Plans For: Woodland Downtown Suites, Subdivision Map No. 5141”

EXHIBIT “C”

SURETY BONDS AND OTHER SECURITY

SUBDIVISION NO. 5141

As evidence of understanding the provisions contained in this Agreement, and of Developer’s intent to comply with same, Developer has submitted the below described security in the amounts required by this Agreement, and has affixed the appropriate signatures thereto:

FAITHFUL PERFORMANCE BOND: \$ 84,011.00

Surety: xxxx

Attorney-in-fact: xxxx

Address: xxxx

PAYMENT BOND: \$ 42,005.00

Surety: xxxx

Attorney-in-fact: xxxx

Address: xxxx

GUARANTEE AND WARRANTY SECURITY BOND: \$ 8,401.00

Surety: xxxx

Attorney-in-fact: xxxx

Address: xxxx

CITY OF WOODLAND

**FAITHFUL PERFORMANCE BOND FOR
SUBDIVISION IMPROVEMENT AGREEMENT**

PROJECT: [INSERT PARCEL MAP NUMBER OR TRACT MAP NUMBER]

WHEREAS, the conditions placed on the tentative/parcel map for Parcel/Tract No. _____ require that the City of Woodland, a municipal corporation of the State of California (“CITY”), by its City Council, and _____ (“PRINCIPAL”) enter into an agreement (“Agreement”) whereby the PRINCIPAL agrees to install and complete certain designated public improvements (“Public Improvements”); and

WHEREAS, the PRINCIPAL is required under the terms of the Agreement to furnish a bond, in a form and from a surety acceptable to the CITY, for the faithful performance of the Agreement.

NOW, THEREFORE, PRINCIPAL and _____ (“SURETY”), a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto CITY in the sum of **[INSERT AMOUNT WRITTEN OUT] DOLLARS (\$[INSERT NUMBERS])**, said sum being not less than one hundred percent (100%) of the total cost of the Public Improvements as set forth in the Agreement, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such, that if PRINCIPAL, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, agreements, guarantees, and warranties in the Agreement and any alteration thereof made as therein provided, to be kept and performed at the time and in the manner therein specified and in all respects according to their intent and meaning, and to indemnify and save harmless CITY, its officers, employees, and agents, as stipulated in the Agreement, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As part of the obligation secured hereby, and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorney’s fees, incurred by CITY in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Agreement, or to any plans, profiles, and specifications related thereto, or to the Public Improvements to be constructed thereunder, shall in any way affect

its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition.

This bond is executed and filed to comply with Section 66499, *et seq.*, of the Government Code of California and Chapter 21 of the Woodland Municipal Code as security for performance of the Agreement and security for the one-year guarantee and warranty of the Public Improvements.

SURETY, by executing this bond, warrants and alleges that it has read the Agreement, or by signing this bond shall be deemed to have read the Agreement, and knows the contents and all provisions contained therein, and shall be bound by each and every term, condition, and provision contained therein.

IN WITNESS WHEREOF, this instrument has been duly executed by PRINCIPAL and SURETY above named, on _____, 20____.

Name of Surety

Principal

By: _____
Title: _____

Mailing Address of Surety

and

Telephone No. of Surety

By: _____
Title: _____

By: _____
Attorney in Fact

Approved as to form:

City Attorney

NOTE: If principal is a partnership, all partners should execute the bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in California.

NOTICE: The signature of the Surety on this bond must be acknowledged before a notary public, and this bond must be accompanied by evidence that the appointment as attorney in fact has been recorded in Yolo County.

MANDATORY: The Surety shall be authorized and licensed by the California Insurance Commissioner as an "admitted surety insurer."

REQUEST TO INSURER TO SUBMIT DOCUMENTS: Execution of this document shall constitute the City’s formal request to the insurer to provide the City with an original of a certificate from the clerk of Yolo County that the certificate of authority of the insurer has not been surrendered, revoked, canceled, annulled, or suspended or, in the event that it has, that renewed authority has been granted.

POWER OF ATTORNEY REQUIRED. The Attorney-in-Fact (resident agent) who executes this bond on behalf of the surety company must attach a copy of his Power of Attorney as evidence of his authority. A notary shall acknowledge the power as of the date of the execution of the surety bond which it covers.

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____, the undersigned notary public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____, the undersigned notary public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the attached bond, that _____, who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his/her signature and his/her signature thereto is genuine; and that said bond was duly signed, sealed and attested for and upon behalf of said Corporation by authority of its governing Board.

Dated: _____

By: _____
Signature

Print Name

(PAGE 1 OF 3)

CITY OF WOODLAND

**LABOR & MATERIAL BOND FOR
SUBDIVISION IMPROVEMENT AGREEMENT**

PROJECT: [INSERT PARCEL OR TRACT MAP NUMBER]

WHEREAS, the conditions placed on the tentative/parcel map for Parcel No. _____ require that the City of Woodland, a municipal corporation of the State of California ("CITY"), by its City Council, and _____ ("PRINCIPAL") enter into an agreement ("Agreement") whereby the PRINCIPAL agrees to install and complete certain designated public improvements ("Public Improvements"); and

WHEREAS, under the terms of the Agreement, PRINCIPAL is required before entering upon the performance of the work, to file a good and sufficient payment bond with the CITY to secure the claims to which reference is made in Title 15 (commencing with Section 3082) of Part 4 of Division 3 of the Civil Code of the State of California.

NOW, THEREFORE, PRINCIPAL and _____ ("SURETY"), a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto CITY and to any and all material men, persons, companies or corporations furnishing materials, provisions, and other supplies used in, upon, for or about the performance of the Public Improvements, and all persons, companies or corporations renting or hiring teams, or implements or machinery, for or contributing to the Public Improvements to be done, and all persons performing work or labor upon the same and all persons supplying both work and materials as aforesaid excepting the PRINCIPAL, the sum of **[INSERT AMOUNT WRITTEN OUT]** DOLLARS, (\$**[INSERT NUMBERS]**), said sum being not less than 50% of the total cost of the Public Improvements under the terms of the Improvement Agreement, we bind ourselves, our heirs, executors and administrators, successors and assigns jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the PRINCIPAL, his or its subcontractors, heirs, executors, administrators, successors, or assigns, shall fail to pay for any materials, provisions, or other supplies or machinery used in, upon, for or about the performance

of the Public Improvements, or for work or labor thereon of any kind, or fail to pay any of the persons named in California Civil Code Section 9100, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor, and all other applicable laws of the State of California and rules and regulations of its agencies, then said SURETY will pay the same in or to an amount not exceeding the sum specified herein.

(PAGE 2 OF 3)

As part of the obligation secured hereby, and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by CITY in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

This bond is executed and filed to comply with Section 66499, et seq., of the California Government Code and Chapter 21 of the Woodland Municipal Code as security for payment to contractors, subcontractors, and persons furnishing labor, materials, or equipment for construction of the Public Improvements or performance of the Agreement. It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Title 3 (commencing with section 9000) of Part 6 of Division 4 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Agreement, or to any plans, profiles, and specifications related thereto, or to the Public Improvements to be constructed thereunder, shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition.

(PAGE 3 OF 3)

IN WITNESS WHEREOF, this instrument has been duly executed by PRINCIPAL and SURETY above named, on _____, 20____.

Name of Surety

Principal

By: _____

Title: _____

Mailing Address of Surety

and

Telephone No. of Surety

By: _____

Title: _____

By: _____
Attorney in Fact

Approved as to form:

City Attorney

NOTE: If principal is a partnership, all partners should execute the bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in California.

NOTICE: The signature of the Surety on this bond must be acknowledged before a notary public, and this bond must be accompanied by evidence that the appointment as attorney in fact has been recorded in Yolo County.

MANDATORY: The Surety shall be authorized and licensed by the California Insurance Commissioner as an "admitted surety insurer."

REQUEST TO INSURER TO SUBMIT DOCUMENTS: Execution of this document shall constitute the City's formal request to the insurer to provide the City with an original of a certificate from the clerk of Yolo County that the certificate of authority of the insurer has not been surrendered, revoked, canceled, annulled, or suspended or, in the event that it has, that renewed authority has been granted.

POWER OF ATTORNEY REQUIRED. The Attorney-in-Fact (resident agent) who executes this bond on behalf of the surety company must attach a copy of his Power of Attorney as evidence of his authority. A notary shall acknowledge the power as of the date of the execution of the surety bond which it covers.

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____, the undersigned notary public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____, the undersigned notary public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the attached bond, that _____, who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his/her signature and his/her signature thereto is genuine; and that said bond was duly signed, sealed and attested for and upon behalf of said Corporation by authority of its governing Board.

Dated: _____

By: _____
Signature

Print Name

(PAGE 1 OF 2)

CITY OF WOODLAND

**SUBDIVISION MAINTENANCE BOND
GUARANTEE AND WARRANTY SECURITY**

PROJECT: [INSERT PARCEL MAP NUMBER OR TRACT MAP NUMBER]

WHEREAS, the conditions placed on the tentative/parcel map for Parcel/Tract No. _____ require that the City Council of the City of Woodland, State of California, and _____ (“PRINCIPAL”) enter into an agreement by which PRINCIPAL agrees to install and complete certain designated public improvements and to guarantee and warrant the work for a period of one year following its completion and acceptance (“Agreement”); and

WHEREAS, PRINCIPAL is required under the terms of the Agreement to furnish a bond to guarantee and warrant the work for a period of one year following its completion and acceptance against any defective work or labor done, or defective materials furnished, to comply with the terms of the Agreement.

NOW, THEREFORE, we, PRINCIPAL and _____ a _____, admitted and duly authorized to transact business under the laws of the State of California as surety (“SURETY”), are held and firmly bound unto the City of Woodland as obligee (“CITY”), in the penal sum of _____ (\$_____) dollars lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if PRINCIPAL, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, provisions in the said agreement and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless CITY, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorneys’ fees, incurred by CITY in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

SURETY hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the agreement or to the work to be performed thereunder or the specifications accompanying the same shall in anywise affect its obligations of this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the

(PAGE 2 OF 2)

agreement or to the work or to the specifications. The surety waives all rights of subrogation against CITY or any person employed by CITY.

IN WITNESS WHEREOF, this instrument has been duly executed by PRINCIPAL and SURETY above named, on _____, 20__.

Name of Surety

Principal

By: _____
Title: _____

Mailing Address of Surety

and

Telephone No. of Surety

By: _____
Title: _____

By: _____
Attorney in Fact

Approved as to form:

City Attorney

NOTE: If principal is a partnership, all partners should execute the bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in California.

NOTICE: The signature of the Surety on this bond must be acknowledged before a notary public, and this bond must be accompanied by evidence that the appointment as attorney in fact has been recorded in Yolo County.

MANDATORY: The Surety shall be authorized and licensed by the California Insurance Commissioner as an "admitted surety insurer."

REQUEST TO INSURER TO SUBMIT DOCUMENTS: Execution of this document shall constitute the City's formal request to the insurer to provide the City with an original of a certificate from the clerk of Yolo County that the certificate of authority of the insurer has not been surrendered, revoked, canceled, annulled, or suspended or, in the event that it has, that renewed authority has been granted.

POWER OF ATTORNEY REQUIRED. The Attorney-in-Fact (resident agent) who executes this bond on behalf of the surety company must attach a copy of his Power of Attorney as evidence of his authority. A notary shall acknowledge the power as of the date of the execution of the surety bond which it covers.

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____, the undersigned notary public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____, the undersigned notary public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the attached bond, that _____, who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his/her signature and his/her signature thereto is genuine; and that said bond was duly signed, sealed and attested for and upon behalf of said Corporation by authority of its governing Board.

Dated: _____

By: _____
Signature

Print Name

Main Street

East Main Street



City of Woodland

COMMUNITY DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

Lincoln Avenue

Third Street

College Street

East Street

Gibson Road

**SZ Downtown Partners
Subdivision 5141**

HWY 113

Bourne Drive

1-5



East Gibson Road

Pioneer Avenue



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: I.10.
SUBJECT: Second Reading of Ordinance No.1640, proposing amendments to Development Impact Fee Deferral Ordinance

Recommendation for Action: Staff recommends that the City Council conduct a second reading of the Ordinance No. 1640, approving the Amendment of SECTIONS 6B-030, 6B-040, 6B-050, 6B-060(b), 6B-080 and 6B-090 of the Woodland Municipal Code relating to the deferral of certain Development Impact Fees.

Staff Contact:

Wendy Ross, Economic Development Manager, (530)661-5921, wendy.ross@cityofwoodland.org

Fiscal Impact:

The fiscal impact to the City would be a delay in receiving development impact fees on qualifying development projects. However, this short-term impact is more than off-set by the program's benefit of stimulating new projects that would not otherwise be feasible. Therefore, the deferral program is projected to have a net positive fiscal impact to the City.

Background:

At its November 6, 2018 meeting, the City Council introduced and waived the first reading and adopted by title only, Ordinance 1640. After council comments and several very valid comments by concerned members of the business community were heard, Council unanimously agreed to amend the Woodland Municipal Code Sections 6B-030, 6B-040, 6B-050, 6B-060(b), 6B-080 and 6B-090 of the Woodland Municipal Code relating to the deferral of certain Development Impact Fees.

Discussion:

It is anticipated that this Amendment will be approved on November 20, 2018 and the amendment Ordinance will be effective 30 days later, on December 20, 2018.

Proposed Amendments:

Section 6B-030. Deferred Fees. Adds to list of eligible fees: Fire, Wastewater and Parks.

Section 6B-040. Definitions. Specifically (f) "Residential Infill Development" single-family or multi-family residential units built on vacant/underutilized parcels within existing urbanized areas.

Section 6B-050. Fee Deferral Program. Does not distinguish market rate or affordable. Allows for deferral for residential infill and all non-residential projects.

Section 6B-060 (b). Approval of Deferred Fees. \$1 million threshold is removed. All Fee Deferral Agreements are approved by the City Manager or designee.

Section 6B-080. Interest. Remove the interest obligation during the deferral period for all projects.

Section 6B-090. Fee Adjustments. Renamed "Fee Calculations"- Amended calculation to be: actual fee amount in at the time of payment which shall occur no later than the date set forth in the fee deferral agreement.

Conclusion:

Staff recommends that the City Council conduct a second reading of the Ordinance No. 1640, approving the Amendment of SECTIONS 6B-030, 6B-040, 6B-050, 6B-060(b), 6B-080 and 6B-090 of the Woodland Municipal Code relating to the deferral of certain Development Impact Fees.

Prepared by: Wendy Ross, Economic Development Manager

Reviewed by: Ken Hiatt, Assist. City Mgr./Community and Economic Development Mgr.



Paul Navazio
City Manager

Attachments:

1. Ordinance No. 1640 Amendment

ORDINANCE NO.1640

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF WOODLAND,
CALIFORNIA, AMENDING SECTIONS 6B-030, 6B-040, 6B-050, 6B-060(b), 6B-080
AND 6B-090 OF THE WOODLAND MUNICIPAL CODE RELATING TO THE
DEFERRAL OF CERTAIN DEVELOPMENT IMPACT FEES

WHEREAS, the City of Woodland ("City") requires the payment of various development impact fees to help address the impacts of new development; and

WHEREAS, the City recognizes that the payment of fees represents a substantial financial commitment for many projects; and

WHEREAS, the construction of residential development and non-residential/commercial/industrial projects has a significantly high fee burden and a relatively longer construction period, typically 12-18 months, making a fee deferral program beneficial for many developers; and

WHEREAS, the inability of developers to construct new development within the City due to the substantial financial commitment for many projects has restricted the City's revenue through the loss of potential *ad valorem* tax revenue and/or sales tax revenue; and

WHEREAS, in an effort to spur development and associated City revenues, the City Council adopted Ordinance No. 1501 on December 8, 2008, permitting developers to defer development impact fees for certain projects until June 30, 2010; and

WHEREAS, the City Council adopted Ordinance No. 1528 on May 17, 2011 to extend the sunset date until June 30, 2013; Ordinance No. 1550 on May 21, 2013 to extend the sunset date until June 30, 2015; Ordinance No. 1585 on July 7, 2015 to extend the sunset date to June 30, 2017; and Ordinance No. 1618 to extend the sunset date to June 30, 2022; and

WHEREAS, to ensure the continued development of residential and non-residential projects and the receipt of accompanying tax revenue, the city wishes to further amend the fee deferral program in order to expand the types of impact fees that may be eligible for deferral, and to revise the types of single-family residential projects that may qualify to apply for fee deferrals, and to further allow both residential and non-residential development to benefit from a fee deferral program without accrued interest during the term of an applicable fee deferral agreement with the City; and

WHEREAS, the City Council finds that revising the fee deferral program to expand the types of projects and the types of fees eligible for a fee deferral may provide greater incentive for new development in the City while likewise increasing the potential for future receipt of additional tax revenue.

NOW, THEREFORE, the City Council of the City of Woodland does hereby ordain as follows:

Section 1. Authority. The City Council enacts this Ordinance under the authority granted to cities by Article XI, Section 7 of the California Constitution.

Section 2. Amendment. Sections **6B-030, 6B-040, 6B-050, 6B-060(b), 6B-080 and 6B-**

090 of the Woodland Municipal Code are hereby amended to read in full as follows:

Sec. 6B-030. Deferred fees.

(a) The city may defer any or all of the following development impact fees pursuant to the provisions of this chapter:

- (1) General city;
- (2) Library;
- (3) Police;
- (4) Water;
- (5) Roads;
- (6) Administration;
- (7) Storm drain
- (8) Fire;
- (9) Wastewater;
- (10) Parks.

(b) The development impact fees set forth in this section 6B-030 shall be further defined in the guidelines. This section 6B-030 provides the exclusive list of fees which may be deferred pursuant to this chapter. Any fees not provided in this section shall be paid pursuant to applicable federal, state or local regulations including, without limitation, fees related to the California Environmental Quality Act.

Sec. 6B-040. Definitions.

(a) “Applicant” means the owner or owners of record for the real property on which an approved development project is to be located.

(b) “Approved development project” means a development project that has received final discretionary action by the city and which is in compliance with all federal, state and local requirements including, without limitation, environmental requirements due prior to issuance of a building permit.

(c) “Deferred fees” means any development impact fees, as set forth in section 6B-030, that the city has agreed to defer pursuant to a fee deferral agreement. “Deferred fees” shall include any accrued interest, if applicable.

(d) “Fee Deferral Agreement” means a standardized agreement satisfactory to the city and approved by the city attorney, executed by and between the applicant and the city for the purpose of approving the deferral of certain deferred fees. The fee deferral agreement shall require the applicant to indemnify, defend and hold harmless the city and its officials, officers, agents and employees for any claims, causes of action or damages/cost arising from the city’s temporary deferral of the deferred fees. A fee deferral agreement is specific to an approved development project and is nontransferable to another applicant or another approved development project.

(e) “Guidelines” means the Public Facilities Fee Program Administrative Guidelines created by the engineer division of the city community development

department, as amended from time-to-time.

(f) “Residential infill development” means an approved development project consisting of single-family or multifamily residential units built on vacant or underutilized parcels within existing urbanized areas.

(g) “Nonresidential development” means a development project in which at least fifty-one percent of the occupiable square footage is used for nonresidential purposes including, without limitation, commercial or industrial uses.

(h) “Nonresidential maximum deferral period” means the twenty-four-month period from the date of issuance of the building permit in which any deferred fees may remain unpaid for any nonresidential development. The nonresidential maximum deferral period for any building permit may be extended at the discretion of the city council prior to the expiration of the nonresidential maximum deferral period.

(i) “Residential maximum deferral period” means the maximum period in which any deferred fees may remain unpaid for any residential development, which shall be determined by the assistant city manager or his or her designee and set forth in the fee deferral agreement; provided, however, that the residential maximum deferral period shall not exceed twelve months from the date of issuance of the building permit. The residential maximum deferral period for any building permit may be extended at the discretion of the city council prior to the expiration of the residential maximum deferral period.

Sec. 6B-050. Fee deferral program.

(a) Residential Infill Development.

- (1) An applicant must enter into a fee deferral agreement to qualify for a deferral of development impact fees for a residential infill development. The fee deferral agreement shall explicitly provide for the recordation of a lien against the real property on which the approved development project is to be located, which shall be removed upon payment in full of all deferred fees. All costs assessed by the county for the recordation of the documents set forth herein shall be paid by the applicant at the time of execution of the fee deferral agreement.
- (2) Deferred fees for a single-family infill residential development shall be due and payable in full for each individual lot within the approved development project upon the earlier of: (i) a request for final inspection under a building permit; or (ii) the close of the residential maximum deferral period for the applicable building permit.
- (3) Deferred fees for a multifamily infill residential development shall be due and payable in full for each building within the approved development project upon the earlier of: (i) a request for final inspection under a building permit; or (ii) the close of the residential maximum deferral period for the applicable building permit.

- (4) If any deferred fees are not paid within the applicable residential maximum deferral period, interest shall accrue on any unpaid balance pursuant to section 6B-080, final inspection and issuance of a certificate of occupancy shall not occur, and payment of the deferred fees shall be undertaken pursuant to the provisions set forth in the fee deferral agreement.

(b) Nonresidential Development.

- (1) An applicant must enter into a fee deferral agreement to qualify for a deferral of development impact fees for a nonresidential development. The fee deferral agreement shall explicitly provide for the recordation of a security instrument, to be mutually agreed upon by the applicant and the city, against the real property on which the approved development project is to be located, which shall be removed upon payment in full of all deferred fees, including interest, as specified in section 6B-080. All costs assessed by the county for the recordation of the documents set forth herein shall be paid by the applicant at the time of execution of the fee deferral agreement.
- (2) Deferred fees for nonresidential developments shall be due and payable in full upon the earliest of: (i) the date set forth in the fee deferral agreement entered into for the subject property; (ii) a request for final inspection under a building permit and/or a certificate of occupancy; or (iii) the close of the nonresidential maximum deferral period for the applicable building permit.
- (3) If any deferred fees are not paid within the nonresidential maximum fee deferral period, interest shall accrue on any unpaid balance pursuant to section 6B-080, final inspection and issuance of a certificate of occupancy shall not occur, and payment of the deferred fees shall be undertaken pursuant to the provisions set forth in the fee deferral agreement.

Sec. 6B-060(b) The Fee Deferral Agreement shall be approved and executed by the City Manager or designee. All such approvals shall be based on the criteria in subsection (a) of this section, and may be withheld if the approval criteria are not met, or if the approval criteria are met and if the approving person or body finds that it is not in the City's interest to approve a Fee Deferral Agreement.

Sec. 6B-080. Interest.

(a) For all approved development projects for which a fee deferral agreement has been approved and executed, no interest shall accrue during the maximum fee deferral period. However, in the event deferred fees are not paid within the maximum fee deferral period, a penalty equal to the annual rate of interest earned by the City of Woodland on the investment of pooled funds, computed on the unpaid amount from the date of execution of the fee deferral agreement to time of payment, shall be due and payable.

Sec. 6B-090. Fee calculations.

Deferred fees shall be paid at the rate or rates applicable at the time of issuance of the building permit. An estimate of the amount of the deferred fees shall be

calculated at the time of building permit issuance and shall be attached to the recorded docs (lien, etc). The actual fee amount shall be calculated and paid at the time of payment which shall occur no later than the date set forth in the fee deferral agreement.

Section 5. Severability. If any provision of this Ordinance or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are severable. This City Council hereby declares that it would have adopted this Ordinance irrespective of the invalidity of any particular portion thereof and intends that the invalid portions should be severed and the balance of the Ordinance be enforced.

Section 6. CEQA. The adoption of this Ordinance is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15061(b)(3), which provides that CEQA only applies to projects which have the potential for causing a significant effect on the environment. Where it can be determined that the proposed project will not have a significant adverse effect on the environment, the project is not subject to CEQA. This Ordinance amends an existing fee deferral program to allow for the deferral of certain development impact fees and does not propose nor authorize any action or specific project that would have the potential to cause a significant adverse effect on the environment.

Section 7. Effective Date and Publication. The City Clerk shall certify to the adoption of this Ordinance, and the City Clerk shall cause this Ordinance to be posted or published as prescribed by law. This Ordinance shall take effect thirty (30) days following its adoption.

PASSED AND ADOPTED this _____ day of _____, 2018 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Enrique Fernandez, Mayor

ATTEST:

Ana B. Gonzalez, City Clerk

APPROVED AS TO FORM:

City Attorney



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: I.11.
SUBJECT: Changes to the Salary Schedule

Recommendation for Action:

Staff recommends that the City Council approve the changes to City of Woodland Salary Schedule effective November 1, 2018 and approve the deletion of several Management Job Descriptions.

Staff Contact:

Sheila McShane, Human Resources Manager, (530) 661 5807, Sheila.mcshane@cityofwoodland.org

Fiscal Impact:

The action to approve the salary schedule has no direct fiscal impact.

Background:

The California Public Employees' Retirement System (CalPERS) requires that the City Council adopt and approve the salary schedule when there are changes to the Salary Schedule or on a quarterly basis, and this staff report serves to meet the CalPERS requirement for the changes to the Salary Schedule effective November 1, 2018.

Discussion:

Staff review various management positions and job descriptions and recommends the following position description be deleted from the active descriptions, and delete the corresponding titles from the Salary Schedule. Currently all the recommended deleted positions are vacant.

Staff recommends deletion of the following positions:

Deputy Director of Public Works – Operations and Maintenance
Deputy Director of Public Works – Utilities
Park and Recreation Director
Public Safety Chief.

Additionally, Staff reviewed Salary ranges of current Department Heads and Recommend the following changes:

Before	Minimum	Maximum
City Clerk	\$6,756.48	\$8,673.48
Community Development Director	\$9,633.60	\$12,615.52
Deputy Director of Community Development	\$9,695.28	\$11,784.66
After	Minimum	Maximum
City Clerk	\$7,630.73	\$10,598.24
Community Development Director	\$9,529.20	\$13,810.44

Deputy Director of Community Development	\$9,927.40	\$12,727.43
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While the ranges for this Department Heads are changing, there is no change to the Department Heads current salaries, as the salaries are set by contract.

Conclusion:

Staff recommends that the City Council approve the changes to the City of Woodland Salary Schedule effective November 1, 2018.

Prepared By: Sheila McShane, Human Resources Manager

Reviewed By: Sheila McShane, Human Resources Manager



Paul Navazio
City Manager

Attachments:

1. 11-01-18 FTE

CITY OF WOODLAND - SALARY SCHEDULE
Effective November 1, 2018

CLASSIFICATION	RANGE NO.	UNIT	A STEP	B STEP	C STEP	D STEP	E STEP	F STEP	G STEP	H STEP
REGULAR FULL-TIME EMPLOYEES - MONTHLY SALARY										
Accountant I *	116	MM	\$4,645.60	\$4,877.89	\$5,121.78	\$5,377.86	\$5,646.76	\$5,646.76		
Accountant II *	120	MM	\$5,127.88	\$5,384.27	\$5,653.47	\$5,936.15	\$6,232.96	\$6,232.96		
Administrative Clerk I	28	GS	\$2,605.41	\$2,735.67	\$2,872.46	\$3,016.09	\$3,166.89	\$3,325.23		
Administrative Clerk II	32	GS	\$2,875.88	\$3,019.67	\$3,170.66	\$3,329.19	\$3,495.65	\$3,670.43		
Administrative Clerk III	36	GS	\$3,174.44	\$3,333.16	\$3,499.83	\$3,674.82	\$3,858.57	\$4,051.50		
Administrative Secretary	42	GS	\$3,681.37	\$3,865.45	\$4,058.71	\$4,261.65	\$4,474.73	\$4,698.47		
Administrative Supervisor	47	GS	\$4,165.14	\$4,373.40	\$4,592.07	\$4,821.67	\$5,062.76	\$5,315.89		
Aquatics Coordinator	32	GS	\$2,875.88	\$3,019.67	\$3,170.66	\$3,329.19	\$3,495.65	\$3,670.43		
Aquatics Supervisor	48	GS	\$4,269.26	\$4,482.73	\$4,706.87	\$4,942.21	\$5,189.32	\$5,448.78		
Assistant Engineer *	125	MM	\$5,801.71	\$6,091.80	\$6,396.39	\$6,716.21	\$7,052.02	\$7,052.02		
Assistant Planner *	118	MM	\$4,880.78	\$5,124.82	\$5,381.06	\$5,650.12	\$5,932.62	\$5,932.62		
Associate Civil Engineer *	131	MM	\$6,728.21	\$7,064.62	\$7,417.85	\$7,788.74	\$8,178.19	\$8,178.19		
Associate Engineer *	127	MM	\$6,095.43	\$6,400.20	\$6,720.20	\$7,056.23	\$7,409.03	\$7,409.03		
Associate Planner *	124	MM	\$5,660.22	\$5,943.22	\$6,240.38	\$6,552.40	\$6,880.03	\$6,880.03		
Asst City Manager/Comm & Econ Dev Dir *		Contract	\$12,463.47				\$16,001.30	\$16,001.30		
Building Inspection Services Manager *	132	MM	\$6,896.41	\$7,241.24	\$7,603.30	\$7,983.47	\$8,382.64	\$8,382.64		
Building Inspector I	49	GS	\$4,376.00	\$4,594.80	\$4,824.53	\$5,065.77	\$5,319.05	\$5,585.00		
Building Inspector II	53	GS	\$4,830.28	\$5,071.80	\$5,325.39	\$5,591.65	\$5,871.24	\$6,164.80		
Chief Building Official *	140	MM	\$8,402.62	\$8,822.74	\$9,263.88	\$9,727.07	\$10,213.43	\$10,213.43		
Chief Collection Systems Operator *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.46	\$8,382.64	\$8,382.64		
Chief Plant Operator *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.46	\$8,382.64	\$8,382.64		
Chief Project Engineer *	145	MM	\$9,506.79	\$9,982.12	\$10,481.25	\$11,005.30	\$11,555.56	\$11,555.56		
Chief Water Systems Operator *	132	MM	\$6,896.41	\$7,241.24	\$7,603.30	\$7,983.47	\$8,382.64	\$8,382.64		
Child Librarian II *	118	MM	\$4,880.78	\$5,124.81	\$5,381.06	\$5,650.12	\$5,932.62	\$5,932.62		
City Clerk *		MGT	\$7,630.73				\$10,598.24			
City Engineer *	145	MM	\$9,506.79	\$9,982.12	\$10,481.24	\$11,005.30	\$11,555.56	\$11,555.56		
City Manager *	Contract						\$18,599.20			
Code Compliance Officer I	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Code Compliance Officer II	50	GS	\$4,485.40	\$4,709.67	\$4,945.15	\$5,192.41	\$5,452.03	\$5,724.63		
Community Development Director *		MGT	\$9,529.20				\$13,810.44			
Community Development Technician I	42	GS	\$3,681.37	\$3,865.45	\$4,058.71	\$4,261.65	\$4,474.73	\$4,698.47		
Community Development Technician II	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Community Services Director	MGT		\$9,449.55				\$12,095.70			
Community Services Officer *	Base	P	\$3,769.29	\$3,957.75	\$4,155.63	\$4,363.42	\$4,581.60	\$4,810.68		
Community Services Program Manager *	125	MM	\$5,801.71	\$6,091.80	\$6,396.39	\$6,716.21	\$7,052.02	\$7,052.02		
Conservation Coordinator	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Construction Project Manager *	129	MM	\$6,404.01	\$6,724.21	\$7,060.42	\$7,413.44	\$7,784.11	\$7,784.11		
Crime Prevention Specialist *	Base	P	\$3,769.29	\$3,957.75	\$4,155.63	\$4,363.42	\$4,581.60	\$4,810.68		
Deputy Director of Community Development *	Contract		\$9,927.40				\$12,727.43			
Deputy Fire Chief ****	Flat	FM	\$9,965.13	\$10,463.38	\$10,986.56	\$11,535.88	\$12,211.24			
Economic Development Manager *	136	MM	\$7,612.36	\$7,992.97	\$8,392.62	\$8,812.26	\$9,252.86	\$9,252.86		
Electrical / Signs & Markings Supervisor	67	GS	\$6,825.07	\$7,166.32	\$7,524.63	\$7,900.87	\$8,295.91	\$8,710.71		
Electrician's Assistant	43	GS	\$3,773.41	\$3,962.07	\$4,160.18	\$4,368.20	\$4,586.61	\$4,815.94		
Engineering Aide I	33	GS	\$2,947.78	\$3,095.17	\$3,249.93	\$3,412.42	\$3,583.04	\$3,762.19		
Engineering Aide II	37	GS	\$3,253.80	\$3,416.49	\$3,587.32	\$3,766.68	\$3,955.01	\$4,152.76		
Engineering Assistant	56	GS	\$5,201.69	\$5,461.77	\$5,734.86	\$6,021.60	\$6,322.69	\$6,638.82		
Engineering Technician I	44	GS	\$3,867.75	\$4,061.13	\$4,264.19	\$4,477.40	\$4,701.27	\$4,936.34		
Engineering Technician II	48	GS	\$4,269.26	\$4,482.73	\$4,706.87	\$4,942.21	\$5,189.32	\$5,448.78		
Engineering Technician III	52	GS	\$4,712.47	\$4,948.09	\$5,195.50	\$5,455.28	\$5,728.04	\$6,014.44		

CITY OF WOODLAND - SALARY SCHEDULE

Effective November 1, 2018

CLASSIFICATION	RANGE NO.	UNIT	A STEP	B STEP	C STEP	D STEP	E STEP	F STEP	G STEP	H STEP
Environmental Compliance Inspector I	39	GS	\$3,418.52	\$3,589.44	\$3,768.92	\$3,957.37	\$4,155.24	\$4,363.00		
Environmental Compliance Inspector II	43	GS	\$3,773.41	\$3,962.07	\$4,160.18	\$4,368.20	\$4,586.61	\$4,815.94		
Environmental Compliance Specialist	49	GS	\$4,376.00	\$4,594.80	\$4,824.53	\$5,065.77	\$5,319.05	\$5,585.00		
Environmental Resources Analyst *	127	MM	\$6,095.43	\$6,400.20	\$6,720.20	\$7,056.23	\$7,409.03	\$7,409.03		
Environmental Sustainability Manger *	131	MM	\$6,728.21	\$7,064.62	\$7,417.85	\$7,788.74	\$8,178.19	\$8,178.19		
Equipment Service Clerk	32	GS	\$2,875.88	\$3,019.67	\$3,170.66	\$3,329.19	\$3,495.65	\$3,670.43		
Equipment Service Worker	34	GS	\$3,021.48	\$3,172.55	\$3,331.17	\$3,497.73	\$3,672.63	\$3,856.26		
Executive Assistant - Confidential		C	\$4,212.36	\$4,422.99	\$4,644.14	\$4,876.34	\$5,120.16	\$5,376.17		
Facility Maintenance Worker I	35	GS	\$3,097.01	\$3,251.87	\$3,414.46	\$3,585.18	\$3,764.44	\$3,952.67		
Facility Maintenance Worker II	41	GS	\$3,591.58	\$3,771.17	\$3,959.72	\$4,157.70	\$4,365.59	\$4,583.87		
Facility Maintenance Worker III	45	GS	\$3,964.44	\$4,162.66	\$4,370.79	\$4,589.34	\$4,818.80	\$5,059.74		
Finance Clerk I	32	GS	\$2,875.88	\$3,019.67	\$3,170.66	\$3,329.19	\$3,495.65	\$3,670.43		
Finance Clerk II	37	GS	\$3,253.80	\$3,416.49	\$3,587.32	\$3,766.68	\$3,955.01	\$4,152.76		
Finance Clerk III	41	GS	\$3,591.58	\$3,771.17	\$3,959.72	\$4,157.70	\$4,365.59	\$4,583.87		
Finance Director *		MGT	\$9,562.32				\$12,275.28			
Finance Officer *	141	MM	\$8,612.69	\$9,043.31	\$9,495.48	\$9,970.26	\$10,468.77	\$10,468.77		
Finance Specialist	41	GS	\$3,591.58	\$3,771.17	\$3,959.72	\$4,157.70	\$4,365.59	\$4,583.87		
Finance Supervisor	54	GS	\$4,951.04	\$5,198.60	\$5,458.52	\$5,731.45	\$6,018.02	\$6,318.92		
Fire Battalion Chief ****	Flat	FM	\$8,735.85	\$9,172.64	\$9,631.27	\$10,112.83	\$10,618.47			
Fire Captain	Base	F	\$7,046.71	\$7,399.04	\$7,768.99	\$8,157.45	\$8,565.31			
Fire Chief **		MGT	\$11,305.55				\$14,682.50			
Fire Engineer	Base	F	\$6,115.77	\$6,421.56	\$6,742.65	\$7,079.78	\$7,433.76			
Fire Marshal	Flat	FM	\$8,735.85	\$9,172.64	\$9,631.27	\$10,112.83	\$10,618.47			
Fire Prevention Specialist I	Base	F	\$4,445.40	\$4,667.87	\$4,901.25	\$5,146.32	\$5,403.62			
Fire Prevention Specialist II	Base	F	\$4,780.26	\$5,019.29	\$5,270.26	\$5,533.76	\$5,810.46			
Firefighter	Base	F	\$5,388.78	\$5,658.21	\$5,941.12	\$6,238.18	\$6,550.08			
Firefighter Recruit	Base	F	\$4,849.90							
Fleet & Facilities Manager *	131	MM	\$6,728.21	\$7,064.62	\$7,417.85	\$7,788.74	\$8,178.19	\$8,178.19		
GIS Analyst	62	GS	\$6,032.36	\$6,333.98	\$6,650.68	\$6,983.22	\$7,332.38	\$7,699.00		
GIS Technician I	49	GS	\$4,376.00	\$4,594.80	\$4,824.53	\$5,065.77	\$5,319.05	\$5,585.01		
GIS Technician II	53	GS	\$4,830.28	\$5,071.80	\$5,325.39	\$5,591.65	\$5,871.24	\$6,164.80		
Heavy Equipment Mechanic	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Human Resources Analyst I		C	\$5,125.38	\$5,381.65	\$5,650.73	\$5,933.27	\$6,229.94			
Human Resources Analyst II		C	\$5,798.90	\$6,088.85	\$6,393.29	\$6,712.95	\$7,048.60			
Human Resources Clerk		C	\$3,235.73	\$3,397.52	\$3,567.40	\$3,745.77	\$3,933.06	\$4,129.71		
Human Resources Manager		C	\$8,188.82	\$8,598.27	\$9,028.17	\$9,479.58	\$9,953.57			
Human Resources Technician I		C	\$3,846.26	\$4,038.57	\$4,240.49	\$4,452.52	\$4,675.14	\$4,908.90		
Human Resources Technician II		C	\$4,288.52	\$4,502.95	\$4,728.09	\$4,964.50	\$5,212.72	\$5,473.36		
Industrial Electrical/Electronics Technician	58	GS	\$5,465.02	\$5,738.28	\$6,025.19	\$6,326.45	\$6,642.77	\$6,974.91		
Information Technology Analyst	60	GS	\$5,741.69	\$6,028.78	\$6,330.21	\$6,646.73	\$6,979.06	\$7,328.02		
Information Technology Manager *	138	MM	\$7,997.73	\$8,397.61	\$8,817.50	\$9,258.36	\$9,721.29	\$9,721.29		
Information Technology Technician I	48	GS	\$4,269.26	\$4,482.73	\$4,706.87	\$4,942.21	\$5,189.32	\$5,448.78		
Information Technology Technician II	52	GS	\$4,712.47	\$4,948.09	\$5,195.50	\$5,455.28	\$5,728.04	\$6,014.44		
Infrastructure O & M Superintendent *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.46	\$8,382.64	\$8,382.64		
Junior Engineer *	121	MM	\$5,256.07	\$5,518.87	\$5,794.82	\$6,084.55	\$6,388.79	\$6,388.79		
Junior Planner *	113	MM	\$4,313.90	\$4,529.59	\$4,756.07	\$4,993.88	\$5,243.58	\$5,243.58		
Laboratory & Environmental Compliance Mgr *	129	MM	\$6,404.01	\$6,724.21	\$7,060.42	\$7,413.44	\$7,784.11	\$7,784.11		
Laboratory Supervisor *	127	MM	\$6,095.43	\$6,400.20	\$6,720.20	\$7,056.23	\$7,409.03	\$7,409.03		
Laboratory Technician I	43	GS	\$3,773.41	\$3,962.07	\$4,160.18	\$4,368.20	\$4,586.61	\$4,815.94		
Laboratory Technician II	47	GS	\$4,165.14	\$4,373.40	\$4,592.07	\$4,821.67	\$5,062.76	\$5,315.89		

CITY OF WOODLAND - SALARY SCHEDULE

Effective November 1, 2018

CLASSIFICATION	RANGE NO.	UNIT	A STEP	B STEP	C STEP	D STEP	E STEP	F STEP	G STEP	H STEP
Librarian I *	114	MM	\$4,421.75	\$4,642.84	\$4,874.98	\$5,118.73	\$5,374.66	\$5,374.66		
Librarian II *	118	MM	\$4,880.78	\$5,124.81	\$5,381.06	\$5,650.12	\$5,932.62	\$5,932.62		
Librarian III *	122	MM	\$5,387.47	\$5,656.84	\$5,939.70	\$6,236.67	\$6,548.51	\$6,548.51		
Library Services Director *		MGT	\$7,277.97				\$9,343.03			
Library Technician Assistant I	29	GS	\$2,670.54	\$2,804.07	\$2,944.28	\$3,091.49	\$3,246.07	\$3,408.37		
Library Technician Assistant II	33	GS	\$2,947.78	\$3,095.17	\$3,249.93	\$3,412.42	\$3,583.04	\$3,762.19		
Library Technician Assistant III	37	GS	\$3,253.80	\$3,416.49	\$3,587.32	\$3,766.68	\$3,955.01	\$4,152.76		
Light Equipment Mechanic	41	GS	\$3,591.58	\$3,771.17	\$3,959.72	\$4,157.70	\$4,365.59	\$4,583.87		
Literacy Coordinator	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Maintenance Supervisor	53	GS	\$4,830.28	\$5,071.80	\$5,325.39	\$5,591.65	\$5,871.24	\$6,164.80		
Maintenance Worker I	35	GS	\$3,097.01	\$3,251.87	\$3,414.46	\$3,585.18	\$3,764.44	\$3,952.67		
Maintenance Worker II	40	GS	\$3,503.99	\$3,679.19	\$3,863.14	\$4,056.30	\$4,259.12	\$4,472.07		
Maintenance Worker III	44	GS	\$3,867.75	\$4,061.13	\$4,264.19	\$4,477.40	\$4,701.27	\$4,936.34		
Management Analyst I *	120	MM	\$5,127.88	\$5,384.27	\$5,653.47	\$5,936.15	\$6,232.96	\$6,232.96		
Management Analyst II *	125	MM	\$5,801.71	\$6,091.81	\$6,396.39	\$6,716.21	\$7,052.02	\$7,052.02		
Meter Services Technician	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Office Manager *	115	MM	\$4,532.29	\$4,758.90	\$4,996.85	\$5,246.69	\$5,509.03	\$5,509.03		
Operations and Maintenance Superintendent *	137	MM	\$7,802.67	\$8,192.81	\$8,602.45	\$9,032.57	\$9,484.20	\$9,484.20		
Park Maintenance Technician	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Park Maintenance Worker I	35	GS	\$3,097.01	\$3,251.87	\$3,414.46	\$3,585.18	\$3,764.44	\$3,952.67		
Park Maintenance Worker II	39	GS	\$3,418.52	\$3,589.44	\$3,768.92	\$3,957.37	\$4,155.24	\$4,363.00		
Park Maintenance Worker III	43	GS	\$3,773.41	\$3,962.07	\$4,160.18	\$4,368.20	\$4,586.61	\$4,815.94		
Park Planner *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.46	\$8,382.64	\$8,382.64		
Park Superintendent *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.46	\$8,382.64	\$8,382.64		
Park Supervisor	51	GS	\$4,597.54	\$4,827.41	\$5,068.78	\$5,322.22	\$5,588.33	\$5,867.75		
Planning Manager *	140	MM	\$8,402.62	\$8,822.74	\$9,263.88	\$9,727.07	\$10,213.43	\$10,213.43		
Police Captain **	Base	PM	\$10,475.47	\$10,999.26	\$11,549.21	\$12,126.69	\$12,733.01	\$13,369.67	\$14,038.15	\$14,740.06
Police Chie **	MGT		\$13,358.70				\$17,427.09			
Police Crime and Intelligence Analyst*	Base	PS	\$5,026.48	\$5,277.82	\$5,541.70	\$5,818.78	\$6,109.72			
Police Lieutenant **	Base	PM	\$9,531.00	\$10,007.55	\$10,507.93	\$11,033.33	\$11,585.01	\$12,164.26	\$12,772.47	\$13,411.10
Police Officer **	Base	P	\$5,726.40	\$6,012.72	\$6,313.36	\$6,629.03	\$6,960.48	\$7,308.50	\$7,673.94	
Police Records Manager *	120	MM	\$5,127.88	\$5,384.27	\$5,653.47	\$5,936.15	\$6,232.96	\$6,232.96		
Police Records Specialist *	Base	P	\$3,345.58	\$3,512.84	\$3,688.49	\$3,872.91	\$4,066.57			
Police Records Supervisor	Base	PS	\$4,600.16	\$4,830.16	\$5,071.67	\$5,325.29	\$5,591.56			
Police Sergeant **	Base	PS	\$6,890.46	\$7,234.98	\$7,596.73	\$7,976.57	\$8,375.40	\$8,794.17	\$9,233.88	\$9,695.58
Pool Facility Technician	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Principal Civil Engineer *	141	MM	\$8,612.69	\$9,043.31	\$9,495.48	\$9,970.26	\$10,468.77	\$10,468.77		
Principal Planner *	136	MM	\$7,612.36	\$7,992.97	\$8,392.62	\$8,812.26	\$9,252.86	\$9,252.86		
Principal Utilities Civil Engineer*	141	MM	\$8,612.69	\$9,043.31	\$9,495.48	\$9,970.26	\$10,468.77	\$10,468.77		
Public Works Director *	MGT		\$10,740.71				\$13,982.76			
Purchasing Manager *	123	MM	\$5,522.16	\$5,798.26	\$6,088.18	\$6,392.59	\$6,712.21	\$6,712.21		
Recreation Coordinator	36	GS	\$3,174.44	\$3,333.16	\$3,499.83	\$3,674.82	\$3,858.57	\$4,051.50		
Recreation Superintendent *	131	MM	\$6,728.21	\$7,064.62	\$7,417.85	\$7,788.74	\$8,178.19	\$8,178.19		
Recreation Supervisor	50	GS	\$4,485.40	\$4,709.67	\$4,945.15	\$5,192.41	\$5,452.03	\$5,724.63		
Redevelopment & Housing Analyst I *	120	MM	\$5,127.88	\$5,384.27	\$5,653.47	\$5,936.15	\$6,232.96	\$6,232.96		
Redevelopment & Housing Analyst II *	124	MM	\$5,660.22	\$5,943.22	\$6,240.38	\$6,552.40	\$6,880.03	\$6,880.03		
Redevelopment Manager *	136	MM	\$7,612.36	\$7,992.97	\$8,392.62	\$8,812.26	\$9,252.86	\$9,252.86		
Secretary to City Manager		C	\$4,320.37	\$4,536.40	\$4,763.22	\$5,001.38	\$5,251.45	\$5,514.02		
Senior Accountant *	125	MM	\$5,801.71	\$6,091.80	\$6,396.39	\$6,716.21	\$7,052.02	\$7,052.02		
Senior Application Analyst *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.46	\$8,382.64	\$8,382.64		

CITY OF WOODLAND - SALARY SCHEDULE
Effective November 1, 2018

CLASSIFICATION	RANGE NO.	UNIT	A STEP	B STEP	C STEP	D STEP	E STEP	F STEP	G STEP	H STEP
Senior Associate Civil Engineer *	134	MM	\$7,245.56	\$7,607.83	\$7,988.23	\$8,387.62	\$8,807.02	\$8,807.02		
Senior Building Inspector	57	GS	\$5,331.73	\$5,598.32	\$5,878.23	\$6,172.14	\$6,480.75	\$6,804.79		
Senior Building Plans Examiner	58	GS	\$5,465.02	\$5,738.28	\$6,025.19	\$6,326.45	\$6,642.77	\$6,974.91		
Senior Center Manager *	120	MM	\$5,127.88	\$5,384.27	\$5,653.47	\$5,936.15	\$6,232.96	\$6,232.96		
Senior Civil Engineer *	138	MM	\$7,997.73	\$8,397.61	\$8,817.50	\$9,258.36	\$9,721.29	\$9,721.29		
Senior Construction Project Manager *	131	MM	\$6,728.21	\$7,064.62	\$7,417.85	\$7,788.74	\$8,178.19	\$8,178.19		
Senior Engineering Assistant	58	GS	\$5,465.02	\$5,738.28	\$6,025.19	\$6,326.45	\$6,642.77	\$6,974.91		
Senior Equipment Mechanic	50	GS	\$4,485.40	\$4,709.67	\$4,945.15	\$5,192.41	\$5,452.03	\$5,724.63		
Senior Human Resources Analyst		C	\$6,668.74	\$7,002.17	\$7,352.28	\$7,719.89	\$8,105.89			
Senior Maintenance Worker	45	GS	\$3,964.44	\$4,162.66	\$4,370.79	\$4,589.34	\$4,818.80	\$5,059.74		
Senior Management Analyst *	131	MM	\$6,728.21	\$7,064.62	\$7,417.85	\$7,788.74	\$8,178.19	\$8,178.19		
Senior Planner *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.47	\$8,382.64	\$8,382.64		
Senior Police Records Specialist *	Base	P	\$3,680.13	\$3,864.13	\$4,057.34	\$4,260.23	\$4,473.25			
Senior Signs and Markings Tech	45	GS	\$3,964.44	\$4,162.66	\$4,370.79	\$4,589.34	\$4,818.80	\$5,059.74		
Senior Systems Analyst *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.46	\$8,382.64	\$8,382.64		
Senior Tree Trimmer	45	GS	\$3,964.44	\$4,162.66	\$4,370.79	\$4,589.34	\$4,818.80	\$5,059.74		
Senior Utilities Maintenance Worker (Sewer)	54	GS	\$4,951.04	\$5,198.60	\$5,458.52	\$5,731.45	\$6,018.02	\$6,318.92		
Senior Utilities Maintenance Worker (Water)	54	GS	\$4,951.04	\$5,198.60	\$5,458.52	\$5,731.45	\$6,018.02	\$6,318.92		
Senior Water System Operator	50	GS	\$4,485.40	\$4,709.67	\$4,945.15	\$5,192.41	\$5,452.03	\$5,724.63		
Signs and Markings Tech I	39	GS	\$3,418.52	\$3,589.44	\$3,768.92	\$3,957.37	\$4,155.24	\$4,363.00		
Signs and Markings Tech II	43	GS	\$3,773.41	\$3,962.07	\$4,160.18	\$4,368.20	\$4,586.61	\$4,815.94		
Social Services Manager *	132	MM	\$6,896.41	\$7,241.24	\$7,603.29	\$7,983.47	\$8,382.64	\$8,382.64		
Sports Manager *	125	MM	\$5,801.71	\$6,091.80	\$6,396.39	\$6,716.21	\$7,052.02	\$7,052.02		
Stock Clerk	32	GS	\$2,875.88	\$3,019.67	\$3,170.66	\$3,329.19	\$3,495.65	\$3,670.43		
Storekeeper	35	GS	\$3,097.01	\$3,251.87	\$3,414.46	\$3,585.18	\$3,764.44	\$3,952.67		
Traffic Signal / Street Lighting Technician	56	GS	\$5,201.69	\$5,461.77	\$5,734.86	\$6,021.60	\$6,322.69	\$6,638.82		
Transportation Engineer *	134	MM	\$7,245.56	\$7,607.83	\$7,988.23	\$8,387.62	\$8,807.02	\$8,807.02		
Treatment Plant Mechanic	54	GS	\$4,951.04	\$5,198.60	\$5,458.52	\$5,731.45	\$6,018.02	\$6,318.92		
Tree Trimmer I	39	GS	\$3,418.52	\$3,589.44	\$3,768.92	\$3,957.37	\$4,155.24	\$4,363.00		
Tree Trimmer II	43	GS	\$3,773.41	\$3,962.07	\$4,160.18	\$4,368.20	\$4,586.61	\$4,815.94		
Underground Utility Service Locator	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Utilities Maintenance Supervisor	53	GS	\$4,830.28	\$5,071.80	\$5,325.39	\$5,591.65	\$5,871.24	\$6,164.80		
Utilities Maintenance Worker I	37	GS	\$3,253.80	\$3,416.49	\$3,587.32	\$3,766.68	\$3,955.01	\$4,152.76		
Utilities Maintenance Worker II	42	GS	\$3,681.37	\$3,865.45	\$4,058.71	\$4,261.65	\$4,474.73	\$4,698.47		
Utilities Maintenance Worker III (Sewer)	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Utilities Maintenance Worker III (Water)	46	GS	\$4,063.55	\$4,266.73	\$4,480.06	\$4,704.07	\$4,939.27	\$5,186.23		
Utilities Maintenance Worker IV (Sewer)	50	GS	\$4,485.40	\$4,709.67	\$4,945.15	\$5,192.41	\$5,452.03	\$5,724.63		
Utilities Maintenance Worker IV (Water)	50	GS	\$4,485.40	\$4,709.67	\$4,945.15	\$5,192.41	\$5,452.03	\$5,724.63		
Wastewater Systems Administrator *	141	MM	\$8,612.69	\$9,043.31	\$9,495.48	\$9,970.26	\$10,468.77	\$10,468.77		
Water / Wastewater Instrumental Technician	62	GS	\$6,032.36	\$6,333.98	\$6,650.68	\$6,983.22	\$7,332.38	\$7,699.00		
Water Pollution Control Facility Superintendent *	141	MM	\$8,612.69	\$9,043.31	\$9,495.48	\$9,970.26	\$10,468.77	\$10,468.77		
Water Pollution Control O-I-T	40	GS	\$3,503.99	\$3,679.19	\$3,863.14	\$4,056.30	\$4,259.12	\$4,472.07		
Water Pollution Control Operator I	51	GS	\$4,597.54	\$4,827.41	\$5,068.78	\$5,322.22	\$5,588.33	\$5,867.75		
Water Pollution Control Operator II	55	GS	\$5,074.81	\$5,328.56	\$5,594.99	\$5,874.73	\$6,168.47	\$6,476.89		
Water Pollution Control Operator III	59	GS	\$5,601.65	\$5,881.73	\$6,175.81	\$6,484.60	\$6,808.84	\$7,149.28		
Water Pollution Control Operator IV	63	GS	\$6,183.17	\$6,492.33	\$6,816.94	\$7,157.78	\$7,515.67	\$7,891.45		
Water Systems Administrator *	141	MM	\$8,612.69	\$9,043.31	\$9,495.48	\$9,970.26	\$10,468.77	\$10,468.77		
Water Systems Operator I	40	GS	\$3,503.99	\$3,679.19	\$3,863.14	\$4,056.30	\$4,259.12	\$4,472.07		
Water Systems Operator II	45	GS	\$3,964.44	\$4,162.66	\$4,370.79	\$4,589.34	\$4,818.80	\$5,059.74		

CITY OF WOODLAND - SALARY SCHEDULE
Effective November 1, 2018

CLASSIFICATION	RANGE NO.	UNIT	A STEP	B STEP	C STEP	D STEP	E STEP	F STEP	G STEP	H STEP
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* Employee pays PERS Misc. Member Contribution of 8%

** Employee pays PERS Safety Member Contribution of 9%

*** If Temporary Employee is hired into a regular classified position paying the PERS Member Share,
that Employee's salary is 8% less for Misc. or 9% less for Safety.

**** Per MOU effective January 1, 2014, Step E is added at 2.5% above the current Step D
Effective July 1, 2018 for MMPA Members Step F is equal to Step E

presented to the City Council on 11/20/2018

TEMPORARY PART-TIME EMPLOYEES - HOURLY WAGES

	A STEP	B STEP	C STEP	D STEP	E STEP
Activity Leader I	\$11.00	\$11.25	\$11.50	\$11.75	\$12.00
Activity Leader II	\$11.75	\$12.00	\$12.25	\$12.50	\$12.75
Activity Manager	\$12.25	\$12.50	\$12.75	\$13.00	\$13.25
Cashier	\$11.00	\$11.25	\$11.50	\$11.75	\$12.00
Counselor	\$11.00	\$11.25	\$11.50	\$11.75	\$12.00
Intern	\$11.00	\$12.00	\$13.00	\$14.00	\$15.00
Library Page	\$11.00	\$11.25	\$11.50	\$11.75	\$12.00
Lifeguard / Aide	\$12.25	\$12.50	\$12.75	\$13.00	\$13.25
Lifeguard / Instructor	\$12.75	\$13.00	\$13.25	\$13.50	\$13.75
Pool Manager	\$14.00	\$14.25	\$14.50	\$14.75	\$15.00
Recreation Facility Aide	\$13.75	\$14.00	\$14.25	\$14.50	\$14.75
Special Program Coordinator	\$13.50	\$13.75	\$14.00	\$14.25	\$14.50
Swim Instructor Aide	\$11.00	\$11.25	\$11.50	\$11.75	\$12.00

Approved by City Council October 2, 2018

No changes to the salary schedule



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: J.12.
SUBJECT: PUBLIC HEARING - OPEN AND CONTINUE - Agricultural Mitigation Ordinance

THIS ITEM WILL BE OPENED AND CONTINUED TO DATE UNCERTAIN.


Paul Navazio
City Manager

Attachments:

None



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: K.13.
SUBJECT: Adoption of the Yolo County Operational Area Multi-jurisdictional Hazard Mitigation Plan Update

Recommendation for Action: Staff recommends that the City Council adopt Resolution No. _____, approving the updated Yolo County Operational Area Multi-jurisdictional Hazard Mitigation Plan.

Staff Contact:

Rebecca Ramirez, Fire Chief (530) 661-5860, becky.ramirez@cityofwoodland.org

Fiscal Impact:

There was no cost associated to the review and update of the Plan as it was conducted by City staff in coordination with the Yolo County OES staff and the Joint Emergency Management Services agreement.

Background:

The City of Woodland recognizes that no jurisdiction is immune from natural, technological or human-caused hazards, and recognizes the importance of enhancing its ability to withstand hazards as well as the importance of reducing human suffering, property damage, interruption of public services and economic losses caused by those hazards. The City of Woodland staff participated in a collaborative effort, led by the County of Yolo, Office of Emergency Services, involving various local and tribal government jurisdictions, public authorities, special districts and selected community-based organizations in Yolo County in the development and revision of the 2013 planning effort.

Discussion:

The updated Yolo County Operational Area Multi-jurisdictional Hazard Mitigation Plan being presented for adoption via Resolution No. _____, is an essential document for the City's emergency management program. The Yolo County Operational Area Multi-jurisdictional Hazard Mitigation Plan update focuses on the potential impacts from natural technological and human-caused hazards and disasters, and includes an assessment of these hazards, a plan to mitigate them and methods of monitoring, evaluating, and updating the plan at least once every five years. The last update for the City of Woodland occurred in 2012. This resolution is required pursuant to the regulations of the Disaster Mitigation Act (DMA) of 2000, Section 322, which provides emphasis on hazard mitigation, including the requirement for local mitigation plans. In order to remain eligible for pre and post disaster hazard mitigation funding.

The updated Yolo County Operational Area Multi-jurisdictional Hazard Mitigation Plan has been coordinated and reviewed by the City's Fire Department, the Yolo County Office of Emergency Services, the California Office of Emergency Services and the Federal Emergency Management Agency.

Conclusion:

Staff recommends that the City Council adopt Resolution No. _____, approving the updated Yolo County Operational Area Multi-jurisdictional Hazard Mitigation Plan.

Prepared By: Brenna Howell, Emergency Management Consultant

Reviewed By: Rebecca Ramirez, Fire Chief

A handwritten signature in black ink, appearing to read "Paul Navazio". The signature is fluid and cursive, with the first name "Paul" and last name "Navazio" clearly distinguishable.

Paul Navazio
City Manager

Attachments:

1. Resolution -LHMP
2. 2018 Yolo County HMP - Draft 3

RESOLUTION NO. _____
A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WOODLAND
ADOPTING THE YOLO COUNTY OPERATIONAL AREA MULTI-JURISDICTIONAL
HAZARD MITIGATION PLAN

WHEREAS, the Federal Disaster Mitigation Act of 2000 (DMA 2000), requires all jurisdictions to be covered by a Pre-Disaster All Hazards Mitigation Plan in order to be eligible for Federal Emergency Management Agency pre- and post-disaster mitigation grants and funding; and

WHEREAS, the City of Woodland recognizes that no jurisdiction is immune from natural, technological or human-caused hazards and recognizes the importance of enhancing its ability to withstand hazards as well as the importance of reducing human suffering, property damage, interruption of public services and economic losses caused by those hazards; and

WHEREAS, the City of Woodland participated in a collaborative effort led by the County of Yolo, involving various local and tribal government jurisdictions, public authorities, special districts, and selected community-based organizations; and

WHEREAS, the Yolo County Operational Area Multi-Jurisdiction Hazard Mitigation Plan Update focuses on potential impacts of natural hazards, and includes an assessment of these natural hazards, a plan to mitigate them, and methods of monitoring, evaluating, and updating the Plan at least once every five years; and

WHEREAS, the United States Department of Homeland Security, Federal Emergency Management Agency (FEMA) has approved the Multi-Jurisdiction Hazard Mitigation Plan; and

WHEREAS, the 2018 Yolo County Multi-Jurisdiction Hazard Mitigation Plan is consistent with Policy 8.F.2 shall be adopted into of the Safety Element of the City of Woodland General Plan. ~~to meet the provisions of Government Code 65302.6.~~

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WOODLAND:

1. The Multi-Jurisdiction Hazard Mitigation Plan Update is hereby adopted; and
~~The Safety Element of the City of Woodland General Plan be amended as described above.~~

PASSED AND ADOPTED by the City Council this 20th day of November, 2018, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Enrique Fernandez, Mayor

ATTEST:

Ana B. Gonzales, City Clerk

APPROVED AS TO FORM:

Kara K. Ueda, City Attorney

This document is a support annex to local
Emergency Operations Plans



2018 Yolo Operational Area Multi- Jurisdictional Hazard Mitigation Plan

Version 1.0

December 2018



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ACKNOWLEDGEMENTS

Yolo County would like to thank those Yolo County Operational Area collaborators and partners who participated in the planning and development of this document.

The official Yolo County Operational Area Hazard Mitigation Steering Committee provided the oversight and dedication to this project that was required and without their commitment; this project would not be possible.

As with any working plan, this document represents planning strategies and guidance as understood as of the date of this plan's release. This plan identifies natural hazards and risks and identifies the hazard mitigation strategy to reduce vulnerability and make the communities of Yolo County more disaster resistant and sustainable.

DRAFT

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LETTER OF PROMULGATION

December 2018

To: Officials and Employees of Yolo County

The preservation of life and property is an inherent responsibility of all levels of government. As disasters occur in devastating form at any time, Yolo County must provide safeguards which will save lives and minimize property damage through mitigation planning and training. Sound mitigation planning carried out by knowledgeable and well-trained personnel can and will minimize losses.

The Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan identified the hazard risks and vulnerabilities for the Yolo County Operational Area and identifies mitigation projects and actions to help reduce those risks. It provides for the integration and coordination of planning efforts of multiple jurisdictions within Yolo County as well as the Yocha Dehe Wintun Nation and the Housing Authority of Yolo County.

The content of this plan is based upon guidance approved and provided by the Federal Emergency Management Agency and the California Governor's Office of Emergency Services. The intent of the Hazard Mitigation Plan is to provide direction on how to mitigate against the threat of disaster through effective mitigation strategies and initiatives.

Once adopted, this plan will be reviewed and tested periodically and revised as necessary to meet changing conditions and requirements.

The Yolo County Board of Supervisors gives its full support to this Hazard Mitigation Plan and urges all public employees and individuals to mitigate against the threat of disaster before they occur.

Chair, Board of Supervisors

Yolo County

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SECTION 1.0: INTRODUCTION

The 2018 Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan (HMP) has been prepared with the intent of establishing an inter-jurisdictional process for the development and implementation of effective hazard mitigation strategies in association with identified hazards that pose real or potential threats to the Yolo Operational Area (YOA).

1.1 PURPOSE

The purpose of this plan is to integrate hazard mitigation strategies into the activities and programs of the local jurisdictions and special districts and to the extent practical, into the activities of private sector organizations.

1.2 SCOPE

The plan identifies and evaluates specific local hazard mitigation strategies to be considered by the YOA and associated planning support for those strategies developed by its political subdivisions, agencies, special districts and organizations. The plan describes strategies that government and private sector organizations may utilize as acceptable and effective mechanisms for mitigating those hazards, within the realistic constraints of capability and priority. The Yolo County Operational Area operates under a Joint Emergency Management Services (JEMS) agreement, whereby the Yolo County Office of Emergency Services assists each participating JEMS member in Yolo County with their emergency management operations. The seven JEMS members include every incorporated city in the County and are represented in this multi-jurisdictional hazard mitigation plan:

The City of Davis
The City of West Sacramento
The City of Winters
The City of Woodland
The Yocha Dehe Wintun Nation
The Housing Authority of the County of Yolo
Unincorporated Yolo County (including all Special Districts)

1.3 LEGAL AUTHORITIES

A number of federal, state and local regulations and policies form the legal framework to implement Yolo County's and its participating jurisdictions hazard mitigation goals and projects.

Federal Laws

- "The Federal Civil Defense Act of 1950"
- Public Law 96-342 "The Improved Civil Defense Act of 1980"
- Public Law 91-606 "Disaster Relief Act"
- Public Law 93-288 "The Robert T. Stafford Disaster Relief Act of 1974"
- Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act
- Public Law 106-390 enacted by Section 104 of the Disaster Mitigation Act of 2000 (DMA)
- Interim Final Rule for DMA 2002 as published in the February 26, 2002, at 44 CFR Part 201

State Laws & Plans

California Government Code, Section 3100, Title 1, Division 4, Chapter 4.

States those public employees are disaster service workers, subject to such disaster service activities as may be assigned to them by their superiors or by law. The term "public employees" includes all persons employed by the state or any county, city, city and county, state agency or public district, excluding aliens legally employed.

The law applies when:

- A local emergency has been proclaimed.
- A state of emergency has been proclaimed.
- A federal disaster declaration has been made.

This Section: Provides the basic authorities for conducting emergency operations following a proclamation of *Local Emergency*, *State of Emergency*, or *State of War Emergency*, by the Governor and/or appropriate local authorities, consistent with the provisions of this Act.

The California Emergency Plan - Revised

Promulgated by the Governor, and published in accordance with the Emergency Services Act, the Plan provides overall statewide authorities and responsibilities, and describes the functions and operations of government at all levels during extraordinary emergencies, including wartime. Section 8568 of the Act states, in part, that "...the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." Local emergency plans are, therefore, considered to be extensions of the California Emergency Plan.

California Civil Code, Chapter 9, Section 1799.102

This section of the California Civil Code provides for "Good Samaritan Liability" for those providing emergency care at the scene of an emergency. Specifically: "No person, who, in good faith and not for compensation, renders emergency care at the scene of an emergency, shall be liable for any civil damages resulting from any act or omission. The scene of an emergency shall not include emergency departments and other places where medical care is usually offered."

State Hazard Mitigation Plan (SHMP) - 2018

The State Hazard Mitigation Plan (SHMP) identifies policy, establishes goals, and stipulates actions associated with the implementation of enhanced hazard mitigation strategies for California. The SHMP is foundational for local government hazard mitigation planning efforts, and provides inter-organizational guidance and direction based upon established state agency actions and principles.

Operational Area Governmental Authorities & Plans - Local Codes and Ordinances

Local and tribal government codes, ordinances, and executive policies are identified within individual community information profiles, located in Appendixes D-J of this plan. Reclamation Districts are covered under Division 15 of the California Water Code.

Yolo Operational Emergency Plans

Local and tribal government emergency management plans and documents associated with hazard mitigation are identified in Sections 1.5 and 2.5 of this plan.

1.4 HISTORY AND OVERVIEW

Yolo County was one of the original 27 counties created when California became a State in 1850. The county is located in the rich agricultural regions of California's Central Valley and the Sacramento River Delta. It is directly west of Sacramento, the State Capital of California, and northeast of the Bay Area counties of Solano and Napa (see Figure 1).



Figure 1 – Location of Yolo County in California

Yolo County is a general law county, which means that the Board of Supervisors is elected by district and that principal officers of the County are regulated by statutes that assign their duties.

The county's total size is 653,549 acres (or 1,021 square miles). This includes both the incorporated area (the cities of Davis, West Sacramento, Winters and Woodland) which totals 32,325 acres and the unincorporated area, which totals 621,224 acres.

The four cities have independent land use authority from the County. The unincorporated county contains several communities, including Capay, Clarksburg, Dunnigan, Esparto, Guinda, Knights Landing, Madison, Monument Hills, Rumsey, Yolo and Zamora. All of these unincorporated communities are under the jurisdiction of Yolo County.

There are other entities within Yolo County that have their own land use and related authority. These include UC Davis, the Yocha Dehe Wintun Nation, and in some circumstances the various school districts.

Established as the University Farm in 1906 and as a formal University in 1959, UC Davis is the largest campus in the UC system, spanning over 5,500 acres in Davis. The university is known for its agriculture, arts, humanities, life sciences, health sciences, veterinarian and engineering programs. Although the University is not subject to this General Plan, it is located within the unincorporated area and its resident student population and on-campus housing are factored into County policy.

Yocha Dehe Wintun Nation is the only federally-recognized tribe with landholdings in Yolo County. The Yocha Dehe Wintun Nation operates the Cache Creek Casino Resort in western Yolo County and has become the County's largest private employer. Tribal trust lands are administered by the U.S. Department of the Interior, Bureau of Indian Affairs and are not subject to County jurisdiction.

The Housing Authority of Yolo County (YCH) is an independent organization whose board of directors is appointed by the Yolo County Board of Supervisors. It receives funding from a variety of public and private sources to provide affordable housing and social programs for the County. Currently, the YCH owns and manages 431 conventional housing apartments and 301 migrant farm worker units.

1.4.1 DEMOGRAPHICS

Lying directly between the rapidly growing regions of Sacramento and the Bay Area, Yolo County has experienced and will continue to experience, tremendous pressures to provide additional residential, commercial and industrial development. The ease of access provided by the Sacramento International Airport, the Capitol Corridor train, the Port of Sacramento and Interstates 5, 80 and 505, have all exacerbated existing growth pressures in the county.

The County's economy is primarily based on agriculture. Yolo County has led the State in agricultural preservation practices for the last several decades, primarily by directing growth into the incorporated cities where services are available and where development can occur more efficiently. The Yolo County General Plan seeks to continue to preserve agriculture while also allowing for measured, appropriate residential and economic development focused within existing communities that will meet regional and local needs.

In 2008, the county's 653,549 acres were home to 199,066 people and contained 73,138 housing units. Approximately 88 percent of that population and 90 percent of the housing units lay within the four incorporated cities. In 2017, the population of the county was 215,802 with 77,166 housing units.

Davis, with a 2016 population of 68,111 and 25,869 housing units in 2010, has a unique university and residential community internationally known for its commitment to environmental awareness and implementing progressive and socially innovative programs. Woodland, with a 2016 population of 59,068 and 19,451 housing units in 2010, is the County seat and is the center of the agricultural economy. It has a strong historic heritage which is reflected in an impressive stock of historic buildings in its downtown area and surrounding neighborhoods. West Sacramento, with a 2016 population of 52,981 and 18,681 housing units in 2010, sits across the Sacramento River from the State capital, Sacramento. It is home to the Port of West Sacramento, which ships out 1.3 million tons of Yolo County's many agricultural products, such as rice, wheat and safflower seed, to world-wide markets. West Sacramento is also home to a Triple-A baseball team, the Rivercats, as well as several State agencies. The City of Winters, with a 2016 population of 7,144 and 2,299 housing units in 2010, is a small farming town nestled at the base of the Vaca Mountains and offers unique shops, renowned restaurants, galleries and regionally acclaimed live entertainment. It is also the gateway to Lake Berryessa, which offers boating, kayaking, hiking, fishing and camping.

Approximately half of the county's unincorporated population and housing units are located within existing communities and residential neighborhoods. The largest is Esparto, with a population of 3,108 and 905 housing units in 2010, which also serves as the gateway to the Capay Valley. Monument Hills (including the Wild Wings community) is defined by its large lot, rural residential character, with a population of 1,542 and 583 housing units in 2010. El Macero is a golf course community, adjoining the City of Davis to the east, with a population of 619 and 448 housing units in 2010. Knights Landing has a population of 995 and 380 housing units in 2010 and is a popular area for hunting and fishing. Dunnigan is the highway commercial center for the northern county, located at the interchange of Interstates 5 and 505 and has 1,416 residents and 340 housing units in 2010. Clarksburg is the focus of the county's premier wine-growing region, with a population of 418 and 177 housing units in 2010. Yolo was once the County seat and currently has a population of 452 and 155 housing units in 2010. Madison has a long farming history and includes one of two Migrant Labor Camps in the county, with 503 residents and 137 housing units in 2010. Other communities include West Plainfield, Rumsey, Guinda, Capay, North Davis Meadows, Binning Farms, Willow Bank, Patwin Road, Royal Oaks, Willow Oak, West Kentucky, El Rio Villa, Zamora and the Rumsey Rancheria.

UC Davis accounts for much of the remaining unincorporated population, with 6,355 students and faculty living on campus. The agricultural areas are the final component, with approximately 7,000 residents and an estimated 2,350 housing units.

Approximately 65 percent of Yolo County residents live in single family houses and 35 percent live in multiple-family units. As of 2016, the majority of Yolo County residents, or 75 percent, was white, with Hispanics comprising approximately 31.5 percent of the population and Asians representing approximately 14.6 percent of the population. UC Davis remained the largest employer in the county in 2016 followed by the State of California and the U.S. Government. According to 2005 California Employment Development Department data, approximately 36 percent of those employed in Yolo County work in government services.

1.4.2 CRITICAL FACILITIES AND INFRASTRUCTURE

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS loss estimation software uses the following three categories of critical assets (Essential Facilities, High Potential Loss Facilities and Transportation and Lifelines). Essential facilities are those that if damaged would have devastating impacts on disaster response and/or recovery. High potential loss facilities are those that would have a high loss or impact on the community. Transportation and lifeline facilities are a third category of critical assets.

The Yolo County Office of Emergency Services maintains a listing of Critical Facilities in Yolo County (including the participating jurisdictions) and the list is categorized according to FEMA's critical facility definition. Additionally, the Community Profiles list the critical facilities specific to that jurisdiction. The following are general categories of critical facilities in Yolo County:

Essential Facilities	High Potential Loss Facilities	Transportation and Lifelines
• Hospitals and other Medical Facilities • Police Stations • Fire Stations • Emergency Operation Centers	• Power Plants • Dams/levees • Military installations • Hazardous Material Sites • Schools • Shelters • Day Care Centers • Nursing Homes • Main Government Buildings	• Highways, Bridges and Tunnels • Railroads and Facilities • Bus Facilities • Airports • Water Treatment Facilities • Natural Gas Facilities and Pipelines • Oil Facilities and Pipelines

In terms of building construction types found in the region, wood frame construction makes up 84% of the building inventory in Yolo County.

For critical facilities, there are two hospitals in the County with a total bed capacity of 151 beds. There are 83 schools, 20 fire stations, five police stations, and seven Emergency Operations Centers. There are seven dams identified within the region. Of these, two of the dams are classified as 'high hazard'. There are also 1,227 hazardous material sites, zero military installations and zero nuclear power plants in Yolo County. There are several transportation systems in the County; these include highways, railways, bus routes, shipping lanes, and airport flight routes. There are over 458 kilometers of highways, 253 bridges, and 5,946 kilometers of pipeline in Yolo County. There are three bus terminals and four primary airports in the County, in addition to the Port of West Sacramento. There are six utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications.

Other facilities in the county, such as locations that hold musical concerts, sporting events, and other events that attract large numbers of people, may also be at higher risk due to concentrations of population. These include, but are not limited to, the Yolo County Fairgrounds, the Cache Creek Casino and Resort, Raley Field, University of California, Davis, high school campuses and county or

city parks. Other critical facilities unique to the county, tribe and cities are located in their respective Community Profiles (attached).

More detailed information on damage and impact to the community as well as the overall summary of the community's vulnerability is located Section 3.0 of the HMP.

1.4.3 NATURAL, HISTORICAL, AND CULTURAL RESOURCES

Assessing Yolo County's vulnerability to disaster also involves inventorying the natural, historical, and cultural assets of the area. This step is important for the following reasons:

- The community may decide that these types of resources warrant a greater degree of protection due to their unique and irreplaceable nature and contribution to the overall economy.
- In the event of a disaster, an accurate inventory of natural, historical and cultural resources allows for more prudent care in the disaster's immediate aftermath when the potential for additional impacts is higher.
- The rules for reconstruction, restoration, rehabilitation, and/or replacement are often different for these types of designated resources.
- Natural resources can have beneficial functions that reduce the impacts of natural hazards, for example, wetlands and riparian habitat which help absorb and attenuate floodwaters and thus support overall mitigation objectives.

Natural Resources

The Yolo Bypass Wildlife Area (Wildlife Area) is 16,770 acres of managed wildlife habitat and agricultural land located within the southern floodway of the Yolo Bypass. A portion of the Wildlife Area spans Interstate 80 adjacent to the Yolo Causeway, between the cities of Davis and West Sacramento. The Wildlife Area is a public and private restoration project managed by the California Department of Fish and Game (DFG) in consultation with the Yolo Basin Foundation. In 1997, the U.S. Army Corps of Engineers restored wetlands and associated habitats within the Wildlife Area. This project, originally named the Yolo Basin Wetlands, was renamed the Vic Fazio Yolo Wildlife Area. The entire wildlife area, however, is officially named the Yolo Bypass Wildlife Area.

The Blue Ridge Berryessa area consists of 785,000 acres along the spine of the western Blue Ridge Mountains in the northwestern part of Yolo County, and includes portions of Colusa, Solano, Napa and Lake Counties. The area remains primarily in private ownership and is not subject to State or federal management. The Blue Ridge Berryessa Natural Area Conservation Partnership (BRBNACP) is a collaboration involving various private land owners; businesses; local, state, and federal agencies; non-profit organizations; and supporters working to protect and enhance the 600,000 acre BRNBA. To date, 50,000 acres have been conserved through easements and purchases.

In 2015, Berryessa Snow Mountain National Monument was created. The 330,780-acre monument extends from nearly sea level on Bureau of Land Management lands around Lake Berryessa in the south, up to 7,000 feet through the northern Snow Mountain Wilderness and the eastern boundary of the Yuki Wilderness in the Mendocino National Forest. The Monument offers a wealth of natural, historical and cultural resources, as well as exciting recreation opportunities for visitors. See Figure 2 for a map of Berryessa Snow Mountain National Monument.

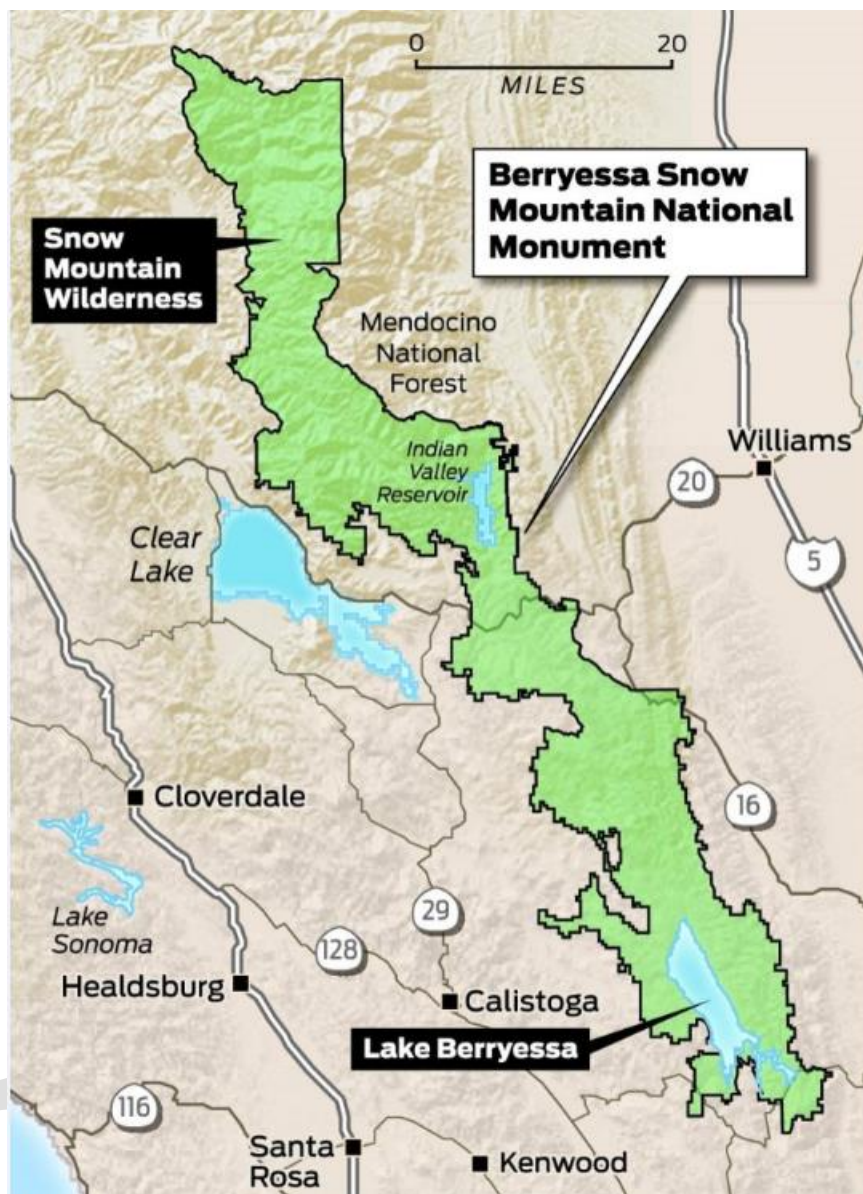


Figure 2: Berryessa Snow Mountain National Monument
Source: San Francisco Chronicle

The lower Cache Creek planning area includes over 28,000 acres of land with state designated mineral resources, which includes about 18,250 acres of known “significant” deposits. Within the Cache Creek planning area the County has designated an Open Space area of about 5,000 primarily privately owned acres which fall under the management guidance and regulation of the Cache Creek Resources Management Plan (CCRMP). As a by-product of permitted aggregate mining within the Cache Creek planning area there is an increasing acreage of dedicated land transferring into public ownership. Public access to these areas is anticipated to increase over time pursuant to the CCRMP. The CCRMP is a component of the Cache Creek Area Plan (CCAP), which is an adopted part of the county’s General Plan. The focus of the CCAP is groundwater protection, agricultural preservation, restoration of Cache Creek, and limitation and regulation of mining.

The Cache Creek Wild and Scenic River Area includes 31 miles of upper Cache Creek in Lake and Yolo counties that were added to the State Wild and Scenic Rivers System in 2005. Designation of the upper reaches of the Creek as “wild and scenic” supports the creek’s scenic, recreational, wildlife, and fishery values and precludes new dams and water diversions.

The federal government owns 30,225 acres and the State of California owns 17,257 acres of land in unincorporated Yolo County managed for open space purposes. Each of the four Yolo County cities also own public open space, mostly in the form of parkland within their boundaries. Notably, the City of Davis has acquired open space lands in a number of locations around its edge, and a number of open space areas are owned and managed by the University of California.

While nearly entirely altered from its native condition, agricultural lands in Yolo County continue to represent an important landscape for numerous wildlife species. Raptors, waterfowl and other water birds, a variety of songbirds, and small mammals use agricultural fields for nesting and foraging; but to large extent, the enhanced value of agricultural habitats in Yolo County is due to the integration of natural communities within the agricultural landscape. Adjacent riparian corridors, roadside trees, windbreaks, woodlots, isolated trees, and field borders provide important nesting, roosting, and cover habitat for many local and migratory species that also use the agricultural fields as foraging habitat. The retention of these adjacent habitats has greatly enhanced the wildlife value of agricultural habitats in Yolo County and their continued retention and restoration is essential in maintaining this value over time.

Approximately 21 percent of the county can be defined as natural lands. These include native oak woodlands, prairie grasslands, and chaparral communities in the western mountains and foothills, riparian woodlands, native and restored wetland communities, and remnant valley oak groves and valley oak trees on the valley floor.

Wetlands

Wetlands include permanent marsh communities that are inundated all or most of the year, and seasonal wetlands that are inundated only a part of the year, typically during winter and spring. Native seasonal wetlands are uncommon in Yolo County and include several remaining patches of alkali sink between Davis and Woodland, and vernal pools associated with the prairie grasslands near Winters. Most seasonal wetlands in Yolo County are restored and managed to provide habitat for wintering waterfowl. Significant areas of seasonal wetland and marsh communities are found primarily in the Yolo Basin, including the Yolo Bypass Wildlife Area, private lands in the southern panhandle, the Conaway Ranch north of Interstate 80, and the City of Davis Wetlands. Additional wetland habitats are found at the recently restored Roosevelt Ranch Preserve east of Zamora and in several other isolated locations throughout the central and eastern portions of the county.

Wetlands are among the most productive wildlife habitats, supporting many species of birds, mammals, reptiles, and amphibians. The presence of wetlands also enhances the biological value of the surrounding landscape because many species that find nesting and cover habitat in wetlands may forage more widely in agricultural or grassland habitats. Marsh communities, including non-tidal freshwater emergent wetland, tidal freshwater emergent wetland, and tidal perennial aquatic wetland provide nesting and cover habitat for many wetland- and aquatic-associated species. Seasonal wetlands provide important habitat for wintering waterfowl and other water birds; and during the dry summer and fall, seasonal wetlands are used by numerous raptor and songbird species.

Riparian

Riparian refers to streamside vegetation that occurs along rivers, creeks, and sloughs. In Yolo County, riparian woodland and shrub communities occur along several natural rivers, creeks, and sloughs and constructed water delivery canals in the county, including Sacramento River, Putah Creek, Cache Creek, Oat Creek, Bird Creek, Buckeye Creek, Willow Slough, Dry Slough, Elk Slough, Sutter Slough, Tule Canal, Deep Water Ship Channel, and the Knights Landing Ridge Cut. Most of the creeks in the county drain the Interior Coast Ranges and flow west to east toward the Sacramento River basin. The sloughs are backwater drainages of the Sacramento River; and the canals were constructed for water delivery or transport purposes. The most significant riparian communities occur along Putah Creek and Cache Creek. Both support relatively dense valley oak/cottonwood riparian forest and are significant wildlife movement corridors between the Interior Coast Ranges on the west and the Sacramento River basin on the east. Smaller creeks and sloughs also support significant remaining riparian corridors that interconnect the mountainous landscape on the west with the valley floor or extend north-south through the lower elevation agricultural landscape.

Riparian vegetation is also essential in maintaining the quality of in-stream habitat by providing shade, food, and nutrients. Downed trees, willow mats, and other vegetation scour pools, form logjams and dams, and provide important habitats for fish, aquatic reptiles and amphibians, and aquatic insects, those are listed below.

- Oak Woodlands/Chaparral
- Grassland Prairies/Valley Oak Savannah
- Remnant Oak Trees, Groves, and Tree Rows

Special-Status Species

Many special-status species (including state and federal threatened and endangered species, state species of special concern and fully protected species, and plants listed by the California Native Plant Society) occur or have potential to occur in Yolo County. Special-status species occur throughout the county in all of the vegetation communities and habitats described above. However, while several species such as bald eagle, golden eagle, and Cooper's hawk are known to occur primarily in the mountainous regions on the western edge of the county, most are known to occur in the more disturbed agricultural landscape of the Central Valley.

As noted above, in many cases the retention of natural features within this landscape greatly enhances habitat conditions for species, such as the Swainson's hawk, that have successfully adapted to an agricultural landscape. Others continue to persist in smaller patches of suitable habitat, such as the state-threatened black rail, which has been detected in the wetlands on the Yolo Bypass Wildlife Area; and the western burrowing owl, which uses remaining grasslands, roadside edges, artificial berms, and some agricultural habitats. Some species have not been detected in the county for many years, such as the western yellow-billed cuckoo, due to limited habitat availability and quality. Preservation and restoration of suitable habitats for these species is key to their continued occurrence or reestablishment in Yolo County.

The Delta Region

In the past several years, the Delta has become an area of intense interest, with numerous planning and legislative efforts looking to redefine the policy and regulatory landscape. The 1959 Delta Protection Act created the legal delta boundary in the Sacramento-San Joaquin Delta (see Figure 3). A portion of Yolo County falls within the boundary. The Regional Flood Planning Boundary includes areas of Yolo County outside of the legal delta boundary.

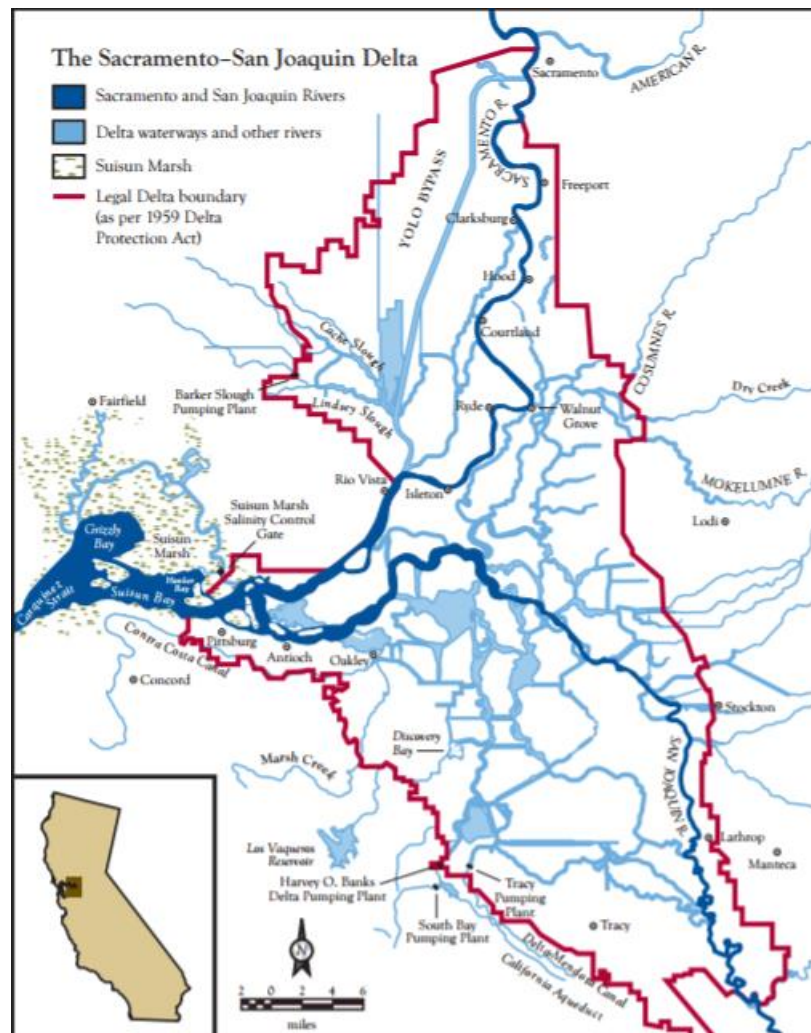


Figure 3: The Legal Delta Boundary

Source: Public Policy Institute of California

Those areas of the Yolo Bypass, the City of West Sacramento, and the unincorporated area that lie south of Interstate 80 are located within the Primary and Secondary Zones of the Sacramento-San Joaquin Delta. Land use in these areas must be consistent with the Yolo County General Plan with the Land Use and Resource Management Plan (LURMP), as adopted by the Delta Protection Commission (DPC). The DPC is currently in the process of updating the LURMP, to address a wide range of issues, including recent court decisions related to water export, studies that indicate serious problems with the health of the Delta ecosystem, concerns about the ability of levees to withstand significant flood and/or seismic events, and the effects of future global climate change. This review may include areas outside of the Delta as currently defined.

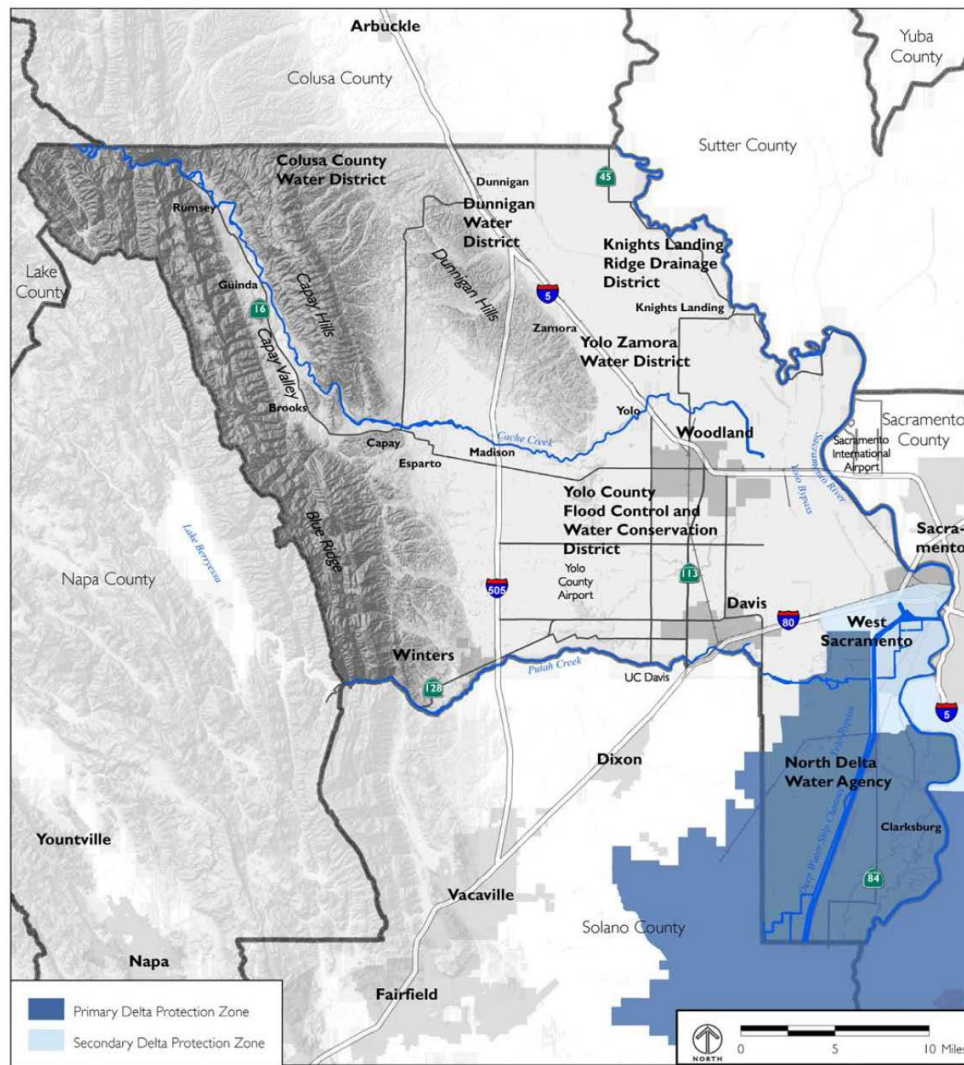


Figure 4: Delta Protection Zones in Yolo County
Source: Yolo County GIS Department

In 2006, the Governor issued an Executive Order creating the Delta Vision process. The Delta Vision Blue Ribbon Task Force (DVBRTF) is a group of public officials, experts, and stakeholders, charged with developing recommendations on the overall management and governance of the Delta, including goals related to improving safety, ensuring water supply and water quality, expanding recreation, coordinating emergency response, and protecting infrastructure and public safety.

Historical Resources

Individuals, various community groups and local organizations throughout Yolo County preserve historical resources. These groups include the County Planning Commission/Historic Preservation Commission and various volunteer historical societies. The Planning Commission serves as the Historic Preservation Commission which is tasked with establishing criteria, guidelines and standards to pursue the goals outlined in the County's Historic Preservation Ordinance. The Commission is responsible for maintaining an inventory of all historical landmarks and districts within Yolo County and recommending future historic designations to the Board of Supervisors.

The Planning Commission decides permits for demolition and for alterations to historic structures. There are a number of repositories of historical artifacts and information in Yolo County, including the Yolo County Historical Museum, the Yolo County Archives and Record Center and the Hattie Weber Museum. The Yolo County Historical Museum is located in Woodland. The museum provides tours of the architecturally historic building and displays furnishings and artifacts from Yolo County's past, specifically between 1850 and 1930, and includes outbuildings that feature artifacts associated with the agricultural industry and farming lifestyle.

The Yolo County Archives and Record Center maintains a comprehensive archive of historical materials dating back from the County's beginnings in 1850. A broad range of materials are stored at the Archive and Record Center, including County documents, original tax records, old newspapers, probates, wills, civil and criminal cases, original maps of Mexican land grants, personal scrapbooks, video reels and a complete set of meeting notes from every meeting of the Yolo County Board of Supervisors.

Yolo County maintains its own list of local historical landmarks. There are also county listings on the National Register of Historic Places, the list of California State Historical Landmarks, and the list of California Points of Historical Interest. Please see the Yolo County Historic Preservation Annex for a complete listing of historical properties in Yolo County.

Cultural Resources

There is one tribe with registered traditional land in Yolo County, the Yocha Dehe Wintun Nation, which is a federally recognized Tribe. They are a significant landowner and employer as the operators of the Cache Creek Casino Resort in Brooks. The Yocha Dehe Wintun Nation is a recognized sovereign nation. As such, the Department of the Interior, Bureau of Indian Affairs, holds approximately 267 acres in trust for the Rumsey Tribe (the Tribe). One site contains houses for the tribal members, a community center, and the Yocha-De-He Preparatory School. The other site is home to the Cache Creek Casino Resort. As sovereign lands, these areas are not a part of the County's General Plan. The Tribe also owns several thousand acres in and around the trust lands. More information on the Yocha Dehe Wintun Nation can be found in their Community Profile.

A countywide record search was conducted at the Northwest Information Center (NWIC) of California Historical Resources Information System at Sonoma State University, and additional sources were also used, to generate a list of over 1,200 recorded cultural resources within Yolo County. Of these, 270 are archeological resources. The locations of these resources have been kept confidential.

1.4.4 ECONOMICS

Yolo County has many existing characteristics that make it a competitive business environment within the Sacramento region. The County's several significant assets include the following:

- Access to regional job centers
- Visibility and easy access to Interstates 80, 5 and 505
- Airport and transit connections
- Affordable housing
- Affordable land
- Food and fiber business synergy

Economic assets at risk may include major employers or primary economic sectors, such as, agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster. After a disaster, economic vitality is the engine that drives recovery. Every community has a specific set of economic drivers, which are important to understand when planning ahead to reduce disaster impacts to the economy. When major employers are unable to return to normal operations, impacts ripple throughout the community. Tables 1 and 2 show the top employers in Yolo County in 2006 and 2016, respectively, as devised from the Book of Lists:

	Company	Number of Employees
1	UC Davis	12412
2	Cache Creek Casino Resort	2500
3	US Postal Service	2300
4	State of California	2050
5	County of Yolo	1615
6	Target Corporation	1023
7	Raley's, Inc.	923
8	Woodland Healthcare	806
9	United Parcel Service	804
10	Rex Moore Electrical Contractors and Engineers	700
11	City of West Sacramento	520
12	Rite Aide Corporation	518
13	Sacramento Logistics	506
14	Sutter Davis Hospital	478
15	City of Woodland	475

Table 1: Yolo County Top 15 Employers 2006
Source: Sacramento Business Journal

	Company	Number of Employees
1	UC Davis	9774
2	State of California	3177
3	U.S. Government	2414
4	Cache Creek Casino Resort	2150
5	County of Yolo	1406
6	Woodland Joint Unified School District	1145
7	Walgreens	803
8	Woodland Memorial Hospital	737
9	Raley's, Inc.	732
10	Sutter Health	721
11	Pacific Gas and Electric Co.	645
12	City of West Sacramento	550
13	Clark Pacific Corp.	535
14	Nugget Market, Inc.	442
15	City of Davis	365
16	Hunter Douglas Inc.	359

17	Beckman Coulter	300
18	Nor-Cal Beverage Co. Inc.	298
19	County of Yolo Office of Education	248
20	Monsanto Co., Vegetable Seeds Division	244
21	Safeway	238
22	City of Woodland	231
23	CommuniCare Health Centers	231
24	University Retirement Community at Davis	220
25	Bayer, CropScience Division	200

Table 2: Yolo County Top 25 Employers 2016

Source: Sacramento Business Journal

Agriculture has been at the heart of Yolo County's identity, character, economy and way of life since the County's founding in 1850. Today, over 85 percent of county land is used for agriculture. Traditional growers on large-scale farms share the land with a growing number of diversified small farms (e.g. truck farms), as well as thriving livestock operations. Additionally, many farmers are implementing innovative new models for farm operation, crop choice and mix and marketing. Important contributors to the strength and success of agriculture in Yolo County include the County's longstanding commitment to agricultural preservation, its focus on directing growth into the existing cities and towns and the presence of UC Davis, which is an international leader in agricultural research and education.

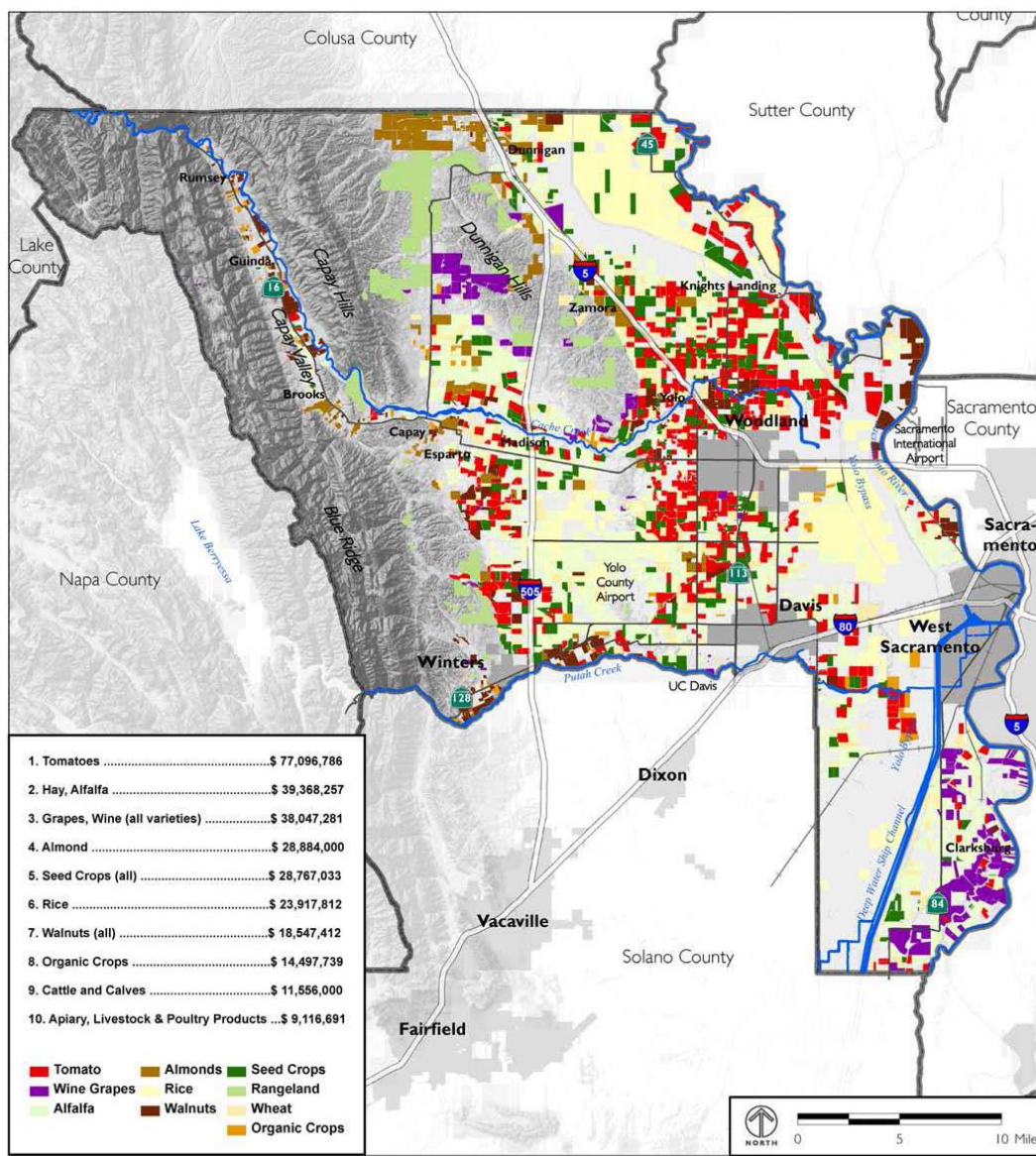
The gross value of Yolo County's agricultural production for 2016 was \$662,392, a decrease of 0.4% below the value of \$664,738,000 in 2015. The majority of this decline is due to continued severe drought conditions coupled with lower overall commodity prices.

Processing tomatoes remain Yolo County's leading commodity with a gross value of \$121,513,000. See Figure 5 for a list of the top twenty agricultural commodities in Yolo County for 2016:



Figure 5: Top Twenty Agricultural Commodities in Yolo County – 2016

Source: Yolo County Agriculture Department



Source: Yolo County Agriculture Dept., 2006.

Figure 6: Top Ten Agricultural Commodities in Yolo County

Source: Yolo County Agriculture Department

Important farmlands in Yolo County are presented on the Important Farmlands in Figure 6. The majority of the County's farmland is Prime Farmland, particularly in flat areas. Most of the County's cities and unincorporated communities are surrounded by Prime Farmland. The western foothills are predominantly classified as Grazing Land.

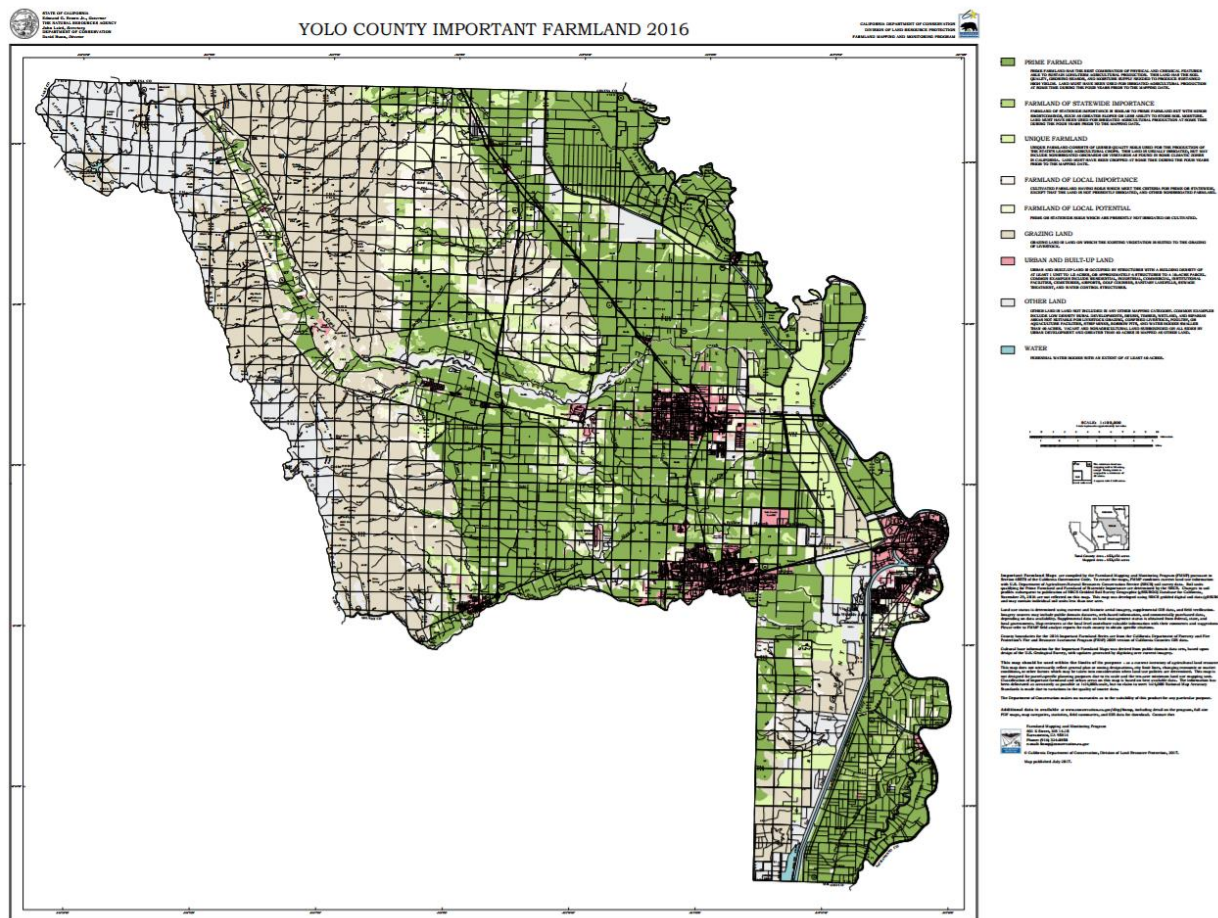


Figure 7: Important Farmland in Yolo County
Source: California Department of Conservation

The California Land Conservation Act, better known as the Williamson Act, has been a cornerstone of the County's agricultural preservation program. As shown in Figure 7, 410,659 acres or 67 percent of Yolo County's total land area is in Williamson Act contracts. In 2005, the State honored Yolo County with an agricultural stewardship award in recognition of the County's work to preserve agricultural land through the Williamson Act. Subventions (reimbursements for lost property tax revenue resulting from Williamson Act contracts) have repeatedly been proposed for reduction or elimination by the State in recent years in order to balance the State budget. This would have a significant and adverse effect on both farmers and the County.

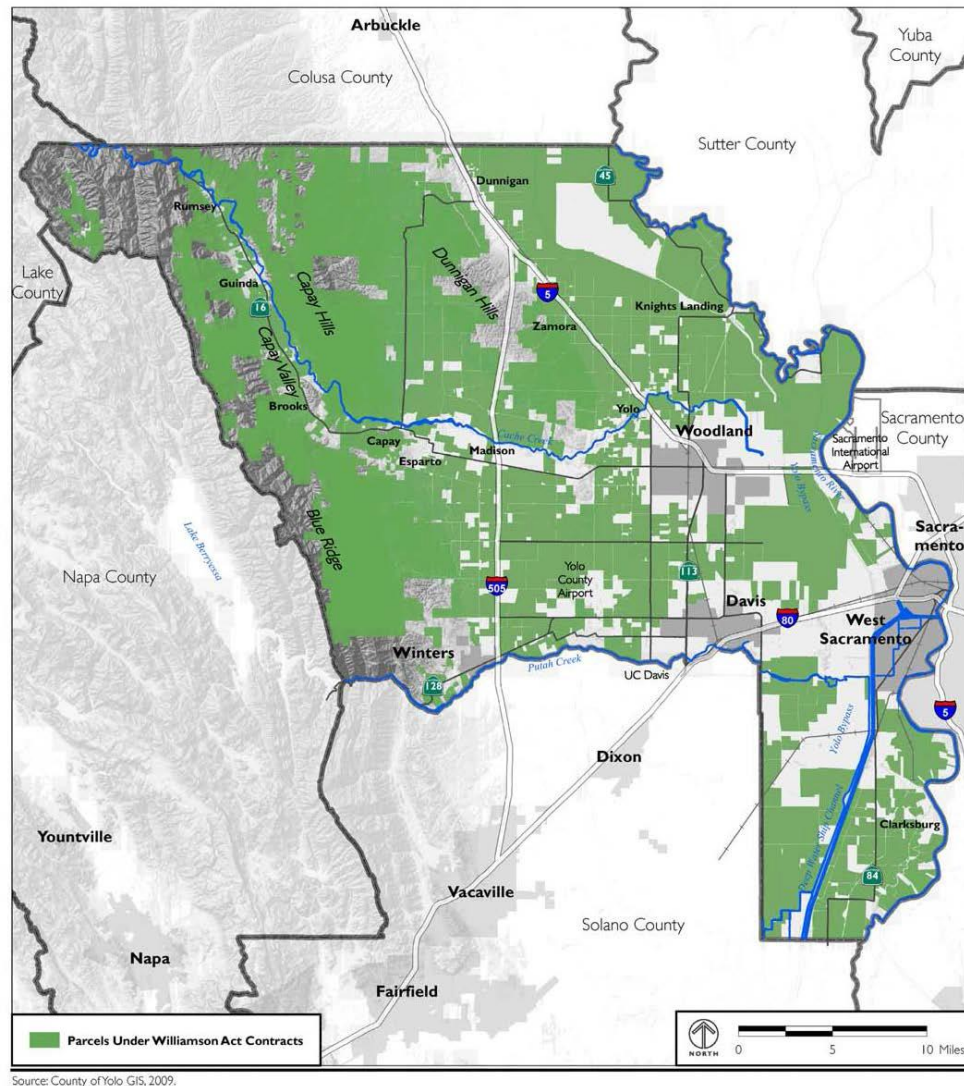


Figure 8: Williamson Act Contracts
Source: Yolo County GIS Department

1.5 EXISTING AUTHORITIES, POLICIES, PROGRAMS, AND RESOURCES

Yolo County and its jurisdictions each has an Emergency Operations Plan, a General Plan, which includes a Safety Element, an Emergency Services Ordinance that clearly defines roles and responsibilities in accordance with state and federal guidelines. The County CAO and jurisdictional City Managers noted in this document serve as the Directors of Emergency Services for their respective areas by law, ordinance and Municipal Code. The Board of Supervisors, City Councils, Tribal Council or Special District Board of Directors serve as the administering agency and the promulgation authority for all plans, policies and procedures within Yolo County and its member jurisdictions. The county and participating jurisdictions recognizes the enhanced Hazard Mitigation Plan of the State of California, the California Emergency Services Act, and the appropriate Federal Regulations including 44 CFR 201. Yolo County is subject to the State of California Uniformed Building Code (UBC), which dictates standards on all current and future construction within Yolo County.

2030 General Plan

The Yolo County 2030 General Plan adopted in 2009 provides comprehensive and long-term policies for the physical development of the county and is often referred to as “the constitution” for local government. This is only the third time in the county’s history that the General Plan has been comprehensively updated, and the first time since 1983. While the fundamental goals of promoting agriculture, enhancing open space, and creating sustainable communities are the same as they have been over the past 50 years, the circumstances facing the county have changed. Issues such as the global economy, climate change, and the role of local government create new challenges to maintaining the county’s historic vision. The 2030 General Plan charts a course for the county over the next twenty years that will achieve its goals and address these concerns. The General Plan separates action items that will implement the variety of programs needed to realize the county’s vision; this plan works in coordination with the 2018 revision of the HMP.

Climate Change Action Plan

The Yolo County Climate Action Plan represents a significant milestone for Yolo County, which has a long history of being in the forefront of the green movement with land use policies that emphasize growth management, open space preservation and agricultural protection. In 1982, Yolo County adopted an Energy Plan, which was one of the first of its kind. In 1985, the county landfill completed a gas-to-energy facility, which generates 20,000 kilowatt hours per year and captures 90% of methane emissions.

In 2007, Yolo County became one of 12 charter members from throughout the country to sponsor the Cool Counties Initiative, which pledges each county collectively to reduce greenhouse gas emissions by 80% by 2050. That same year, the county organized local cities, special districts and UC Davis to form the Yolo County Climate Change Compact, providing an ongoing forum for exchanging information on how best to analyze and address greenhouse gas emissions.

The General Plan contains more than 350 policies that deal with climate change, including the requirement to develop a Climate Action Plan. Several initiatives from the Climate Action Plan have been incorporated as mitigation projects into the HMP. In addition to implementing General Plan policy, the Climate Action Plan also fulfills the requirements of state legislation, including Assembly Bill 32, Senate Bills 97 and 375, and Executive Order S-3-05.

The Climate Action Plan estimates that in 2008, the unincorporated area (excluding UC Davis, the Yocha Dehe Wintun Nation and special districts) produced 651,470 metric tons of carbon dioxide equivalents, or greenhouse gasses. Approximately 48% of those emissions are created by agriculture. Transportation and energy account for an additional 47%, with the remainder made up by such sectors as the landfill, wastewater treatment, construction, mining and stationary sources.

A target is established in the Climate Action Plan to reduce the 2008 emissions back to the levels estimated for 1990, or 613,651 metric tons. To achieve this target, 15 programs are proposed, including such measures as increasing renewable energy production, enhancing energy and water conservation, expanding alternative transportation, planting trees and reducing fertilizer application. In order to meet the reductions envisioned in the Cool Counties Initiative and state legislation, the Climate Action Plan also includes voluntary goals to reduce greenhouse emissions to 447,965 metric tons by 2030, and 122,730 metric tons by 2050.

1.6 NEW ITEMS FOR THE 2018 UPDATE

This document is, in concept, a revision of the Yolo County Hazard Mitigation Plan, composed and approved in 2005 and then updated and reapproved in 2013. This update represents a major refinement of the hazard mitigation planning process for Yolo County in accordance with FEMA's latest planning guidance the *Local Mitigation Plan Review Guide* released in 2011 and implemented in 2012.

The revision of the HMP has been a collaborative effort, involving various local and tribal government jurisdictions, public authorities, special districts, and selected community-based organizations that represent a broad composite of the operational area. Additionally, selected state agencies and organizations have also contributed to this planning effort, and are represented within the document by direct participation or supplemental reference.

The bulk of the revision was conducted as a collaborative partnership between several local and tribal government organizations, organized as the HMP Steering Committee, and coordinated and facilitated by the Yolo County Office of Emergency Services (OES). This was a major inter-organizational undertaking, requiring a commitment of staff time, organizational resources, ongoing communication, and data collection in an effort to achieve the desired hazard mitigation planning goals. The specific jurisdictions represented in the plan that will formally approve this 2018 update are as follows: Cities of Davis, Winters, West Sacramento and Woodland, the Yocha Dehe Wintun Nation; the Housing Authority of the County of Yolo; Yolo County; and all of the Reclamation Districts and Special Districts in Yolo County that wish to approve it.

In addition to governmental efforts, community involvement was a major objective of the planning process, with significant online and participative outreach conducted at various stages within the planning process. Although not every aspect of the broader community was directly involved in the planning process, significant effort was made to ensure that the public and non-governmental entities had a voice in the plan's development.

1.6.1 REVISION OF THE HAZARD IDENTIFICATION AND RISK ASSESSMENT

This revised 2018 HMP now focuses on manmade and technological hazards in addition to the natural hazards facing our community. The Steering Committee decided to include manmade and technological hazards in an effort to strengthen the resilience, planning and mitigation efforts of all member agencies. The risk assessment for each identified natural hazard was updated as determined by the steering committee. A risk assessment for each identified manmade and technological hazard was developed as determined by the steering committee. This included a reformulation of the hazard profiles and additions of new hazard occurrences. The vulnerability assessment was updated based on more recent hazard data.

1.6.2 CLIMATE CHANGE

According to the California Natural Resource Agency (CNRA), climate change is already affecting California and is projected to continue to do so well into the foreseeable future. Current and projected changes include increased temperatures, sea level rise, a reduced winter snowpack altered precipitation patterns, and more frequent storm events. Over the long term, reducing greenhouse gases can help make these changes less severe, but the changes cannot be avoided entirely. Unavoidable climate impacts result in a variety of secondary consequences including detrimental impacts on human health and safety, economic continuity, ecosystem integrity and provision of basic

services. Climate change is being profiled in the 2018 Yolo County Hazard Mitigation Plan as standalone hazard while addressing each of the other natural hazards. Yolo County is considering climate change issues when identifying future mitigation actions.

1.6.3 EMERGENCY MANAGEMENT ACCREDITATION PROGRAM

The Emergency Management Accreditation Program (EMAP), provides the voluntary standards, assessment, and accreditation process for disaster preparedness programs throughout the country. It fosters excellence and accountability in emergency management and homeland security programs by establishing credible standards applied in a peer review accreditation process. EMAP was created by a group of national organizations to foster continuous improvement in emergency management capabilities. It provides emergency management programs the opportunity to be recognized for compliance with industry standards, to demonstrate accountability, and to focus attention on areas and issues where resources are needed. Yolo County is pursuing EMAP accreditation, and as such has to meet several hazard mitigation standards. This information is provided throughout the plan as well as in EMAP summary sheets located in Appendix B.

1.6.4 PROGRESS ON LOCAL MITIGATION EFFORTS

There was significant success in the implementation of the mitigation actions as defined in the 2005 and 2013 planning process, so the Steering Committee reassessed the need for those actions, looked at new actions and provided an explanation as to the methodology. A brief detail of the mitigation actions from the 2005 and 2013 planning effort is described in the table in Section 4.

There were several mitigation actions and strategies in the 2013 plan that were listed as “moderate and low risk” actions. Those actions were not included and were reviewed and revised to either be included in the 2018 planning effort or not used at all due to their project descriptions/content not being fully developed.

1.6.5 CONTINUED PARTICIPATION IN THE COMMUNITY RATING SYSTEM PROGRAM

Yolo County has participated in the Community Rating System Program (CRS) since 2012. The CRS program is designed to recognize floodplain management activities that go above and beyond the National Flood Insurance Program’s (NFIP) minimum requirements. CRS is designed to reward a community for implementing public information, mapping, regulatory, loss reduction and/or flood preparedness activities. On a scale of 10 to 1, Yolo County is currently ranked Class 8. One of the overall priorities of Yolo County is to continue in this program.

Finally, the extent to which this revised plan will or will not be a success locally is dependent upon the commitment at all levels of the designated operational area, whether it be governmental or community-based, to monitor the progress of the identified mitigation strategies, and to ensure that appropriate projects are implemented in accordance with identified need, overriding policy, and funding availability.

1.7 HAZARD MITIGATION PRINCIPLES

- *Hazard Mitigation* is any sustained action taken to eliminate or reduce long-term risk to human life, property, and the environment posed by a hazard.
- *Hazard Mitigation Planning* is the process of making any sustained plan or course of action taken to reduce or eliminate long-term risk to people and property from both natural hazards

and their effects. The planning process includes establishing goals and recommendations for mitigation strategies.

- Hazard Mitigation may occur during any phase of a threat, emergency or disaster. Mitigation can and should take place during the preparedness (before), response (during), and recovery (after) phases.
- The process of hazard mitigation involves evaluating the hazard's impact and identification and implementation of actions to minimize the impact.

1.8 PLAN ORGANIZATION AND STRUCTURE

The Plan has been developed using the latest guidance from the FEMA called the *Local Mitigation Plan Review Guide*, dated October 11, 2011 and is structured similar to their Plan Review Tool.

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SECTION 2.0: PLANNING PROCESS

More often than not, communities are faced with having to deal with the aftermath of an unwanted hazard that can devastate areas of a community. While we cannot prevent disasters from happening, their effects can be reduced or eliminated through hazard mitigation planning, but only if a local government has the foresight to assess likely hazards and craft preventative measures before the next hazard event occurs. This Element describes the background of hazard planning and why citizens and governments are becoming better prepared.

Revision of the Hazard Mitigation Plan requires collaboration and partnering at a multitude of levels.

- Identifying the primary local stakeholders – Formation of inter-jurisdictional Hazard Mitigation Steering Committee
- Establishing project goals and objectives
- Organizing the project work plan based upon identified goals and objectives
- Establishment of jurisdiction-specific hazard mitigation work groups to facilitate internal planning activity
- Organizing jurisdiction/agency-specific Hazard Mitigation Working Groups
- Review of existing Hazard Mitigation Plan
- Identification and refined assessment of real or potential hazards and threat conditions
- Revision of jurisdictional demographic and organizational data, and reformatting of information presentation
- Development of prioritized hazard mitigation strategies and projects, keyed to identified hazards

2.1 PARTICIPATING JURISDICTIONS AND ORGANIZATIONS

The jurisdictions participating in the 2018 Yolo County Hazard Mitigation Plan include:

The County of Yolo

The City of Davis

The City of West Sacramento

The City of Winters

The City of Woodland

The Yocha Dehe Wintun Nation

The Housing Authority of Yolo County

Reclamation District 108 (including Sacramento West Side Levee District and Knights Landing Ridge Drainage District)

Reclamation District 900

Reclamation District 2035

Yolo County Flood Control & Water Conservation District

During the response phase, the agencies that are charged with responsibilities in this plan focus on the following five goals:

- Mitigate hazards.

- Meet basic human needs.
- Address needs of people with disabilities and other access and functional needs.
- Restore essential services.
- Support community and economic recovery.

The Yolo County Office of Emergency Services (OES) was delegated with the role of lead agency for the coordination and facilitation of the joint hazard mitigation plan revision project. OES functioned as the central point of contact for all partnering jurisdictions and organizations, as well as the liaison between the Yolo Operational Area and the State regarding plan revision. Finally, OES performed the bulk of actual plan format and development, in conjunction with the Steering Committee members.

2.2 STEERING COMMITTEE

The Yolo County Hazard Mitigation Plan Steering Committee consists of the emergency management representative for each jurisdiction and includes:

County of Yolo

David M. Block, OES Emergency Services Planner, Office of Emergency Services, County of Yolo

City of Davis

Daryl Arbuthnott, Fire Chief, Fire Department, City of Davis

City of West Sacramento

Bryan Jonson, Fire Marshal, Fire Department, City of West Sacramento

City of Winters

Dan McGuire, Executive Assistant, City Manager's Office, City of Winters

City of Woodland

Becky Ramirez, Fire Chief, Woodland Fire Department, City of Woodland

Yocha Dehe Wintun Nation

Gary Fredericksen, Fire Chief, Yocha Dehe Fire Department, Yocha Dehe Wintun Nation

Housing Authority of the County of Yolo

Janis Holt, General Managing Director, Housing Authority of Yolo County

Reclamation District 108 (including Sacramento West Side Levee District and Knights Landing Ridge Drainage District)

Meegan Nagy, Deputy Manager, RD 108

Reclamation District 900

Kenric Jameson, District Manager, RD 900

Reclamation District 2035

Mike Hall, CPG Farm Manager, RD 2035

Yolo County Flood Control & Water Conservation District

Kristin Sicke, Assistant General Manager, YCFCWCD

The HMP Steering Committee will meet and review the mitigation recommendations and strategies identified within this plan:

- This Committee will support the recommendations adopted by each jurisdiction for implementation and coordination on a state and regional basis.
- Each jurisdiction will review and adopt, as necessary, the work of the Committee on an annual basis.
- The Committee will review the quarterly progress reports on the implementation of the adopted hazard mitigation strategies brought forth by participating local and tribal government entities within the Yolo Operational Area.
- As required under prevailing state and federal requirements, this plan will be reviewed and updated on a five-year cycle. The strategies may be updated based on changing priorities and relieved constraints as identified below.

Each participating local jurisdiction will establish a mechanism for the development and implementation of jurisdictional mitigation projects, as identified within this plan and associated locally-specific supporting documents. As deemed necessary and appropriate, participating jurisdictions will organize local mitigation Steering Committees or other groups to facilitate and administer internal activities.

Typically, the local Steering Committee may consist of representatives from any of the following agencies or groups:

- Administrative departments and offices
- Public works departments
- Community planning and development departments
- Facility management agencies
- Fire departments
- Finance departments
- Public utility agencies
- Business development agencies
- Community service/Public service agencies

When constituted and organized, local hazard mitigation Steering Committees or entities may perform the following mitigation functions to meet local goals and objectives:

- Continue to review and assess local hazard mitigation needs and capacities in conjunction with this plan and other supporting documents and information
- Revise key local mitigation data and information
- Receive and process supplemental and supporting hazard mitigation reference information and guidance as released by the state and/or FEMA
- Provide guidance to local emergency management in the integration of adopted risk information and adjustments to local mitigation activities
- Provide local hazard mitigation information and guidance to resident populations, inquiring organizations, vendors, and other interested parties
- Provide information and guidance to the local governing body relative to hazard mitigation issues, needs, gaps, and project activities

2.2.1 STEERING COMMITTEE PLANNING PROCESS

Beginning in early 2017 members of the HMP Steering Committee agreed to a tri-annual meeting schedule to identify hazard priorities and review local hazard mitigation strategy recommendations. Email notifications were sent out to each HMP Steering Committee member to solicit their participation in the HMP Steering Committee meetings.

The HMP Steering Committee agreed to make and pass plan-based general policy recommendations by a vote of a simple majority of those members present. The Committee will also seek input on future hazard mitigation programs and strategies from the local hazard mitigation Steering Committee or representative from each of the participating jurisdictions.

- Contact and work with each Hazard Mitigation Strategy's Lead Agency for an annual progress report on funding and implementation of the program recommended.
- Receive an annual report from each jurisdiction on the status of the strategies adopted and implemented.
- Meet annually, with each political subdivision, to identify new hazard mitigation strategies to be pursued on a state and regional basis, and review the progress and implementation of those programs already identified.
- Meet tri-annually to review the progress of the Hazard Mitigation program and bring forth community input on new strategies.
- Coordinate with and support the efforts of the Yolo County Office of Emergency Services to promote and identify resources and grant money for implementation of recommended hazard mitigation Strategies within local jurisdictions and participating public agencies.

2.2.2 STEERING COMMITTEE TASKS

Specific tasks were identified for the Steering Committee in order to ensure that project goals for the HMP revision were undertaken and completed. The following represents those primary Steering Committee tasks:

- Coordinate tasks and activities with the Office of Emergency Services to develop all-hazards disaster mitigation plan and oversee the planning process.
- Prioritize hazards vs. resources.
- Select highest and best mitigation recommendations and develop those recommendations for further action by the Yolo Operational Area.
- Review planning drafts, recommendations and updates.
- Develop and implement long and short term goals.
- Integrate the plan with all phases of comprehensive emergency management planning.
- Provide for the implementation of committee decisions.
- Encourage, coordinate and provide a methodology for the implementation of public input.
- Provide for the implementation of committee decisions.
- Establish Hazard Mitigation Steering Committee Tasks to Include but not be limited to the following:
 - Determine implementation ability and constraints for proposed Hazard Mitigation planning steps and development of strategies
 - Bring forward community concerns through private and public input
 - Identify implementation resources

- Provide for the update of Comprehensive Emergency Management Plans on a scheduled basis
- Evaluate and carry out mitigation activities
- Assist in implementation of funding identification and procurement
- Ensure that adjacent jurisdictions, pertinent private entities and citizens are informed of the Yolo Operational Area Hazard Mitigation Planning Process and offer each the opportunity for input into the plan.

2.2.3 STEERING COMMITTEE FUTURE TASKS

Specific future tasks were identified for the Steering Committee in order to ensure that project goals for the HMP revision were continued. The following represents those primary Steering Committee future tasks:

- Define the mitigation constraints that the Yolo Operational Area is required to follow in implementing recommendations from the Hazard Mitigation Steering Committee.
 - Protection of sensitive information
 - Apply budget constraints to recommended hazard mitigation strategies
 - Apply state policy and legal constraints to mitigation strategies brought forward by the Steering Committee.
- Meet on an annual basis to review the work of and contribute to the Yolo Operational Area Hazard Mitigation Steering Committee activities.
- Bring forth the concerns and views of the community to the Steering Committee for consideration in the ongoing Hazard Mitigation planning process.
- Assist in informing the public and community of the Hazard Mitigation strategies recommended by both the Steering Committee and individual jurisdictional Steering Committees.
- Define the constraints for implementation of prioritized mitigation strategies within the authorities, laws, and regulations of the local and tribal government entities existing within the Yolo Operational Area.
- Carry out the goals and objectives of the Yolo Operational Area Multi Hazard Mitigation Plan.
- Support and review the input from meetings of the adjunct members with individuals, agencies and jurisdictions.
- Assure that the public is kept informed of changing strategies and implementation actions periodically.

2.3 INTERAGENCY COORDINATION

Since the inception of this planning process there have been two major forums for sharing this planning with adjacent jurisdictions. The first is the Mutual Aid Regional Advisory Committee for California Mutual Aid Region IV. Region IV's members are comprised of 11 counties within the Cal EMA Inland Region, located near the Greater Sacramento area. The value to this collaboration is that these counties share many of the same characteristics as Yolo County such as similar threats, politics, geography and culture. This coordinated process has been made possible by the support of many federal grant programs. This has allowed a multi-county, multi-agency approach to both prevention and mitigation issues in public health and emergency medical services. Since many of the counties in Region IV have already gone through the hazard mitigation planning process, their experience and

advice has proven invaluable to Yolo County. Each of these meetings includes a local roundtable discussion where we have been able to freely and collaboratively share our local hazard mitigation planning process. Additionally, due to the location and proximity to the Bay Area, Yolo County collaborates with counties that share a border within region's II and III with respect to many issues such as the Delta Emergency Planning, Terrorism Planning, Earthquake Preparedness, Medical Countermeasure Distribution, and Mass Care coordination.

Additional agencies that Yolo County has coordinated with in the 2018 HMP update process include:

- Yolo County Transportation District
- CalFIRE
- Pacific Gas & Electric
- Woodland Memorial Hospital

During the 2018 HMP update process, stakeholders were invited via invitation email to each HMP meeting.

2.4 PUBLIC INVOLVEMENT

Opportunities were given for the public to comment on the Plan during the drafting and update stages and prior to plan approval. Public meetings were held after the first and third plan update meetings. Notices were posted on the Yolo County website, as well as in each of the County newspapers. Public surveys were all distributed at each public meeting and were posted in each County library location. Local radio station KFBK announced the survey and second public meeting on a broadcast.

2.4.1 INTEGRATION OF PUBLIC INPUT

The Steering Committee considered the options available regarding conducting public meetings for the purpose of revealing and gathering comment from the community relating to the Plan draft. After several discussions, it was determined that a public meetings would be held twice a year after the first and third hazard Plan update meetings, in different locations throughout the County. No public meetings were held from 2012-2016. Two public meetings were held in 2017, in Woodland and in Davis (see Appendix A for documentation). While all municipalities were involved in the decision process and encouraged to participate in individual local sessions, the result was two combined public presentations. All jurisdictions conducted an aggressive drive to receive public input on the general perception of threats within their community, the importance of individual preparedness, and the level of hazard mitigation.

In order to facilitate the use of new outreach technologies, a survey was created using the Internet (see Appendix A), with access provided through existing governmental websites. The survey was also available in paper format at all County libraries.

Information collected from questionnaires and through interaction with the community at the public forums was analyzed by the Hazard Mitigation Steering Committee and County OES staff and used to help identify public concern and perceptions on identified threats.

As Plan stakeholders developed their individual hazard prioritization matrices, the information from their respective communities was also considered in formulating the hazard list and subsequent analysis of each of those hazards. The result was a listing of High, Moderate and Low Risk Priority

natural, technological, and human-conflict hazards that can or could impact the Yolo Operational Area. Out of that general assessment, prioritized mitigation strategies, with identified implementation projects, and was developed by inter-jurisdictional consensus.

2.4.2 CONTINUED PUBLIC INVOLVEMENT

The Yolo Operational Area Hazard Mitigation Steering Committee has made the commitment to periodically bring this plan before the public through public meetings and community posting so that citizens may make input as strategies and implementation actions change. Public meetings will continue to be held twice a year after the first and third HMP meetings. Public meetings will continue to be stand-alone meetings but may also follow a council meeting or other official government meeting. The public will continue to be invited to public meetings via social media messaging, newspaper invitations, and through the website for each jurisdiction participating in the plan. Each jurisdiction including the Cities of Davis, West Sacramento, Winters, Woodland and the Yocha Dehe Wintun Nation is responsible for assuring that their citizenry are informed when deemed appropriate by the Steering Committee.

2.5 REVIEW AND INCORPORATION OF EXISTING PLANS

The HMP will be used to focus project prioritization. Mitigation projects will be considered for funding through federal and state grant programs, and when other funds are made available through the County and or federal government. The Yolo County OES will be the coordinating agency for project implementation. Individual jurisdictions have the capacity to organize resources, prepare grant applications, and oversee project implementation, monitoring, and evaluation. Coordinating organizations may include local, county, or regional agencies that are capable of, or responsible for, implementing activities and programs. Yolo County OES will be responsible for mitigation project administration with Yolo County and will assist each submitting jurisdiction named in this plan with their mitigation project administration.

Yolo County planning efforts are supportive of each other. Information from the Yolo County HMP is incorporated into and used to support the Yolo County General Plan, Yolo County Climate Action Plan, Yolo County Emergency Operations Plan, and the continuity plans for each County and jurisdictional department. Many of these planning efforts incorporate all Yolo County jurisdictions and special districts (i.e. flood response plans for each city and Reclamation District with their input). Yolo County provides emergency planning services to all four cities in Yolo County, the Yocha Dehe Wintun Nation, and the Housing Authority of Yolo County; information from the HMP (including the risk assessment) is incorporated into each of their Emergency Operations Plans and accompanying annexes as well as their continuity plans. Information from several of these plans were used to support the Yolo County HMP as well.

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SECTION 3.0: HAZARD IDENTIFICATION AND RISK ASSESSMENT

Yolo County is at risk from a variety of potential hazards: natural, technological and human conflict related. Many of these hazards, under the right circumstances, could result in a disastrous impact to the county.

Although an attempt has been made to identify all major hazards and their respective impacts, it must be remembered that we live in a time of emerging threats. Nature coupled with humankind's ongoing development and tendencies toward violence ensures that the material contained within this document will surely require modification over time.

Risk to natural hazards is a combination of hazard, vulnerability and capability. This section of the HMP will look at both hazards and vulnerability. The risk assessment process identifies and profiles relevant hazards and assesses the exposure to of lives property and infrastructure to these hazards. The goal of the risk assessment is to estimate the potential losses in Yolo County from a hazard event. This process also allows communities in Yolo County to better understand their potential risk to natural hazards and provides a framework for developing and prioritizing mitigation actions to reduce the risks from future hazard events in Yolo County.

3.1 HAZARD IDENTIFICATION

The process of identifying hazards that do, or could potentially affect Yolo County at various levels was the first step in assessing overall risk. Recognizing the potential required an analysis of known, suspected, and emerging hazards existing within or directly affecting the Yolo OA. Some of the following questions were used during the analysis:

- What are the known hazards?
- What are the suspected hazards?
- What are the potentially emerging hazards?
- What are the elements of the hazard?
- What are the conditions associated with the occurrence of a hazardous event?
- What factors are required for an event to turn hazardous?

In the early meetings with Yolo County and the Steering Committee, data was reviewed from the following sources on hazards affecting the county, those sources were: the Federal and State Disaster Declaration History, the State of California Hazard Mitigation Plan (2018), the Safety Element of the participating jurisdictions, the 2005/2013 Yolo County Hazard Mitigation Plan and many more documents as noted in the references section of this plan.

The Steering Committee came to agreement on significant hazards to Yolo County. The following natural hazards are detailed in this section:

- Dam Failure
- Flooding
- Levee Failure
- Earthquake
- Landslide

- Land Subsidence
- Severe Weather
 - Fog
 - Tornado
 - High Wind
 - Extreme Heat
 - Freeze
- Volcano
- Wildfire
- Drought
- Climate Change and Sea Level Rise

The planning process used the available FEMA tools to evaluate all the possible threats faced. Through the threat analysis process the most probable threats, the most devastating threats and the most significant threats to Yolo County were identified. Other threats not identified in this plan are identified in other plans such as functional response plans and procedures that could potentially affect Yolo County.

3.1.1 DISASTER DECLARATION HISTORY

One method to identify hazards is to look at the events that have triggered federal and/or state disaster declarations that included Yolo County. The following table lists the disaster declarations where Yolo County was designated federal and/or state disaster declarations since the 2005 plan update. The USDA Disasters below are the Primary designation for Yolo County. There were 27 Contiguous County designations received in Yolo County from 2005 to 2012.

Hazard Type	Disaster Number	Year	State Declaration	Federal Declaration
Severe Weather	DR-4301, DR-4305, DR-4308	2017	☒	☒
Drought	USDA	2012-2014		☒
Freeze	USDA	2008		☒
Drought	USDA	2008		☒
Severe Weather, Wind		2008	☒	
Drought	USDA	2007		☒
Severe Storms, Flooding, Mudslides and Landslides	DR-1628	2006	☒	☒
Rainfall & Severe Weather	USDA	2006		☒
Severe Storms, Flooding,	USDA	2006		☒

Hazard Type	Disaster Number	Year	State Declaration	Federal Declaration
Mudslides & Landslides Pres.				
Fire	USDA	2006		☒
Hurricane Katrina Evacuations	EM-3248	2005		☒
Drought	USDA	2005		☒

3.1.2 OMISSION OF HAZARDS

Several natural hazards were omitted from further analysis for all participating jurisdictions due to either their low probability of occurrence or minimal impact:

Haboob: A haboob is a type of intense dust storm carried on an atmospheric gravity current known as a weather front. Haboobs occur primarily in arid regions including parts of Arizona, New Mexico, and Texas. Yolo County does not have arid land and does not experience haboobs.

Space Weather: Space weather includes conditions and events on the sun, in solar wind, in near-Earth space, and in Earth's upper atmosphere that can affect space-borne and ground-based technological systems. Space weather also includes asteroids, comets, and meteors. There have been no space weather events in Yolo County. While a solar flare has the potential to disrupt communications and while an impact from a space object could cause significant loss of life and destruction, the probability of these events occurring in Yolo County is considered extremely unlikely.

Tsunami: A tsunami is a long high sea wave caused by an earthquake, submarine landslide, or other disturbance such as an asteroid. Yolo County is not located in a tsunami inundation zone due to its distance from San Francisco Bay and the Pacific Ocean.

Tropical Storm/Hurricane: A tropical storm is a tropical cyclone with winds of 39-73 miles per hour while a hurricane is a tropical cyclone with winds of 74 miles per hour or greater. Though tropical cyclones have passed over Southern California, none have reached Yolo County due to its northern latitude and climate.

Severe Weather – Hail/Ice/Snow: Hail is pellets of frozen rain that fall in showers from cumulonimbus clouds while snow is atmospheric water vapor frozen into ice crystals and falling in light white flakes. There have been minor occurrences of hail, ice, and snow in Yolo County, but none that have had significant impacts. A significant event is not expected to occur in Yolo County due to its mild winter temperatures and climate.

3.2 HAZARD ANALYSIS

The Hazard identification and Risk Assessment (HIRA) provides the factual basis for activities proposed in the mitigation strategy that will reduce losses from identified hazards. The HIRA makes

a clear connection between the community's vulnerability and the hazard mitigation actions. According to Section 44 of the Code of Federal Regulations, The HMP must include a definition and description of the natural hazards that can affect the jurisdiction(s) in the planning area, as well as several additional required elements for natural hazards:

LOCATION AND PREVIOUS OCCURRENCES

Location means the geographic areas in the planning area that are affected by each hazard. This information is show in narrative form and/or in maps. The HMP also includes the history of previous hazard events for each of the identified hazards.

IMPACTS

Impact means the consequence or effect of the hazard on the community and its assets. Assets are determined by the community and include, for example, people, structures, facilities, systems, capabilities, and/or activities that have value to the community.

EXTENT

Extent describes the potential severity of a disaster and any secondary events caused by the hazard in the operational area. Extent is classified by the following:

- **Catastrophic:** More than 50 percent of the operational area affected
- **Critical:** Between 35-50 percent of the operational area affected
- **Limited:** 10-25 percent of the operational area affected
- **Negligible:** Less than 10 percent of the operational area affected

PROBABILITY

Probability notes the frequency of past events and is used to gauge the likelihood of future occurrences. Based on historical data, the probability of future occurrences is categorized into one of the following classifications:

- **Highly Likely:** Near 100 percent chance of occurrence next year or happens every year
- **Likely:** Between 10 percent and 100 percent chance of occurrence in next year or has a recurrence interval of 10 years or less
- **Occasional:** Between 1 percent and 10 percent chance of occurrence in the next year or has a recurrence interval of 11 to 100 years
- **Unlikely:** Less than 1 percent chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years

The probability, or chance of occurrence, was calculated where possible based on existing data. Probability was determined by dividing the number of events observed by the number of years and multiplying by 100. This gives the percent chance of the event happening in any given year. An example would be three droughts occurring over a 30-year period, which suggests a 10 percent chance of that hazard occurring in any given year.

VULNERABILITY

The vulnerability assessment further defines and quantifies populations, buildings, critical facilities, and other community assets at risk to natural hazards. The vulnerability assessment for this plan followed the methodology described in the FEMA 386-2, Understanding Your Risks – Identifying Hazards and Estimating Losses.

The vulnerability assessment was conducted based on the best available data and the significance of the hazard. Data to support the vulnerability assessment was collected from the following sources:

- County and jurisdictional GIS data (hazards, base layers, and other government data)
- Statewide GIS datasets compiled by CalOES to support mitigation planning
- FEMA's HAZUS loss estimation software
- Written descriptions of assets and risks provided by participating jurisdictions
- Existing plans and reports
- Personal interviews with jurisdictional representatives and other stakeholders

The vulnerability assessment describes the assets at risk in Yolo County, including the total exposure of people and property; critical facilities and infrastructure; natural, cultural, and historic resources; and economic assets.

3.3 HAZARD RISK ASSESSMENT – NATURAL HAZARDS

3.3.1 DAM FAILURE

Dams are manmade structures built for a variety of uses including flood protection, power generation, agriculture, water supply, and recreation. When dams are constructed for flood protection, they are usually engineered to withstand a flood with a computed risk of occurrence. For example, a dam may be designed to contain a flood at a location on a stream that has a certain probability of occurring in any one year. If prolonged periods of rainfall and flooding occur that exceed the design requirements, that structure may be overtopped and fail. Overtopping is the primary cause of earthen dam failure in the United States.

Dam failure is the uncontrolled release of impounded water from behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail. Dam failure causes downstream flooding that can affect life and property. Dam failures can result from any one or a combination of the following causes:

- Earthquake
- Inadequate spillway capacity resulting in excess overtopping flows
- Internal erosion caused by embankment or foundation leakage, or piping or rodent activity
- Improper design
- Improper maintenance
- Negligent operation

- Failure of upstream dams on the same waterway

Water released by a failed dam generates tremendous energy and can cause a flood that is catastrophic to life and property. A catastrophic dam failure could challenge local response capabilities and require evacuations to save lives. Impacts to life safety will depend on the warning time and the resources available to notify and evacuate the public. Major loss of life could result as well as potentially catastrophic effects to roads, bridges, and homes. Electric generating facilities and transmission lines could also be damaged and affect life support systems in communities outside the immediate hazard area. Associated water supply, water quality and health concerns could also be an issue. Factors that influence the potential severity of a full or partial dam failure are the amount of water impounded; the density, type, and value of development and infrastructure located downstream; and the speed of failure.

In general, there are three types of dams: concrete arch or hydraulic fill, earth and rockfill, and concrete gravity. Each type of dam has different failure characteristics. A concrete arch or hydraulic fill dam can fail almost instantaneously; the flood wave builds up rapidly to a peak then gradually declines. An earth-rockfill dam fails gradually due to erosion of the breach; a flood wave will build gradually to a peak and then decline until the reservoir is empty. And, a concrete gravity dam can fail instantaneously or gradually with a corresponding buildup and decline of the flood wave.

The California Department of Water Resources (DWR) Division of Safety of Dams (DSOD) has jurisdiction over impoundments that meet certain capacity and height criteria. Embankments that are less than six feet high and impoundments that can store less than 15 acre-feet are non-jurisdictional. Additionally, dams that are less than 25 feet high can impound up to 50 acre-feet without being jurisdictional. The Cal DWR DSOD assigns hazard ratings to large dams within the State. The following two factors are considered when assigning hazard ratings: existing land use and land use controls (zoning) downstream of the dam. Dams are classified in three categories that identify the potential hazard to life and property:

- High hazard indicates that a failure would most probably result in the loss of life
- Significant hazard indicates that a failure could result in appreciable property damage
- Low hazard indicates that failure would result in only minimal property damage and loss of life is unlikely

Since 1929, the state has supervised all non-federal dams in California to prevent failure for the purpose of safeguarding life and protecting property. Supervision is carried out through the state's Dam Safety Program under the jurisdiction of DWR. The legislation requiring state supervision was passed in response to the St. Francis Dam failure and concerns about the potential risks to the general populace from a number of water storage dams. The law requires:

- Examination and approval or repair of dams completed prior to August 14, 1929, the effective date of the statute.
- Approval of plans and specifications for and supervision of construction of new dams and the enlargement, alteration, repair, or removal of existing dams.
- Supervision of maintenance and operation of all dams under the state's jurisdiction.

The 1963 failure of the Baldwin Hills Dam in Southern California led the Legislature to amend the California Water Code to include within state jurisdiction both new and existing off-stream storage facilities.

Dams and reservoirs subject to state supervision are defined in California Water Code §6002 through §6004, with exemptions defined in §6004 and §6025. In administering the Dam Safety Program, DWR must comply with the provisions of the California Environmental Quality Act (CEQA). As such, all formal dam approval and revocation actions must be preceded by appropriate environmental documentation.

In 1972, Congress moved to reduce the hazards from the 28,000 non-federal dams in the country by passing Public Law 92-367, the National Dam Inspection Act. With the passage of this law, Congress authorized the U.S. Army Corps of Engineers (USACE) to inventory dams located in the United States. The action was spurred by two disastrous earthen dam failures during the year, in West Virginia and South Dakota that caused a total of 300 deaths.

The Water Resources Development Act of 1986 (P.L. 99-662) authorized USACE to maintain and periodically publish an updated National Inventory of Dams (NID). The Water Resources Development Act of 1996 (P.L. 104-303), Section 215, re-authorized periodic updates of the NID by USACE.

LOCATION AND PREVIOUS OCCURRENCES

In the area around Yolo County there are six dams, of various types of construction and the failure of any one would cause some degree of flooding in Yolo County:

Monticello Dam (Putah Creek) – U.S. Bureau of Reclamation
Indian Valley Dam (Cache Creek) – Yolo County Flood Control and Water Conservation District
Shasta Dam (Sacramento River) – U.S. Bureau of Reclamation
Oroville Dam (Feather River) – California Department of Water Resources
Folsom Dam (American River) – U.S. Bureau of Reclamation
Nimbus Dam (American River) – U.S. Bureau of Reclamation

Monticello Dam

Monticello Dam is a thin arch concrete structure 270 feet high. It impounds a maximum of 1,602,300 acre-feet creating Lake Berryessa in Napa County, 10 miles west of Winters. In the event of failure, Monticello Dam presents a high hazard to downstream areas and extensive loss of life and property would likely occur. Winters and Davis are particularly vulnerable to the threat of a Monticello Dam failure, as their stormwater management systems would become inundated.

Large uncontrolled water releases into Putah Creek could occur resulting from either a major or partial dam failure, or earthen slides into Lake Berryessa, which could cause overtopping of the dam.

Seismic evaluation of Monticello Dam indicates it could withstand an earthquake of Richter magnitude 6.5 with the epicenter located 0.5 miles from the dam. Thus, the dam is considered secure from such an occurrence. The topography of the lake relative to the size of potential slides makes the

possibility of dam overtopping very unlikely. Any landslide that would move into the outlet works or spillway area would be especially dangerous to the dam.

The unstable area adjacent to the dam crest at its contact with the left abutment will be closely monitored by the dam tender during the raining season and after seismic activity. Landslides into the downstream channel could impound water but releases would be expected to be gradual as the new “dam” was eroded away. Severe storms are not expected to cause rapid rises in the water surface of Lake Berryessa.

Indian Valley Dam

Indian Valley Dam is an earth-filled dam producing a lake of 359,000 acre-feet storage capacity (maximum). The dam is located in Lake County, northwest of Yolo County, on the North Fork of Cache Creek. Depending upon the rate of discharge following dam failure the area of potential inundation extends along the Cache Creek all the way to the I-80 and the Yolo Bypass. The Yocha Dehe Wintun Nation as well as unincorporated communities in the Capay Valley are vulnerable to an Indian Valley Dam failure. Tribal housing and agricultural lands are particularly susceptible, as is the State Route 16 transportation corridor.

Shasta Dam

Shasta Dam is a concrete gravity dam. The reservoir (Lake Shasta) has a maximum storage capacity of 4,552,000 acre-feet. The dam is located in Shasta County north of Summit City. Dam failure would result in varying degrees of inundation to eastern and northeastern Yolo County. Knights Landing and West Sacramento are particularly susceptible.

Oroville Dam

Oroville Dam is an earth-filled dam. The reservoir (Oroville Lake) has a maximum storage capacity of 3,500,000 acre-feet. The dam is located in Butte County, northeast of Yolo County, above the Sacramento River. Failure of the dam would overwhelm the Yolo Bypass, where agricultural land is susceptible to flooding, and would threaten West Sacramento and the eastern side of Woodland.

Folsom Dam

Folsom Dam is a concrete and earth dam. The lake has a maximum storage capacity of 977,000 acre-feet. The dam is located in Sacramento County, east of Yolo County on the American River.

Dam failure would result in some degree of inundation to areas of Yolo County bounded by the west levee of the Yolo Bypass, on the north by a point on Old River Road one-half mile south of Kiesel Crossing and on the south by the county line. West Sacramento is vulnerable to flooding if the Sacramento River levee surround it were to fail.

Nimbus Dam

Nimbus Dam is a concrete gravity dam. The reservoir (Lake Natoma) has a maximum storage capacity of 8,760 acre-feet. The dam is located in Sacramento County, east of Yolo County. All actions relating to a failure of Nimbus Dam would be identical to those required by a failure of Folsom Dam except the resulting inundation would be less severe.

According to data provided by DWR, there are two dams in Yolo County. Of the two dams, both were not rated:

Cache Creek Settling Basin
Davis Creek Dam

See Figure 9 for a map of dams and dam inundation zones in and around Yolo County

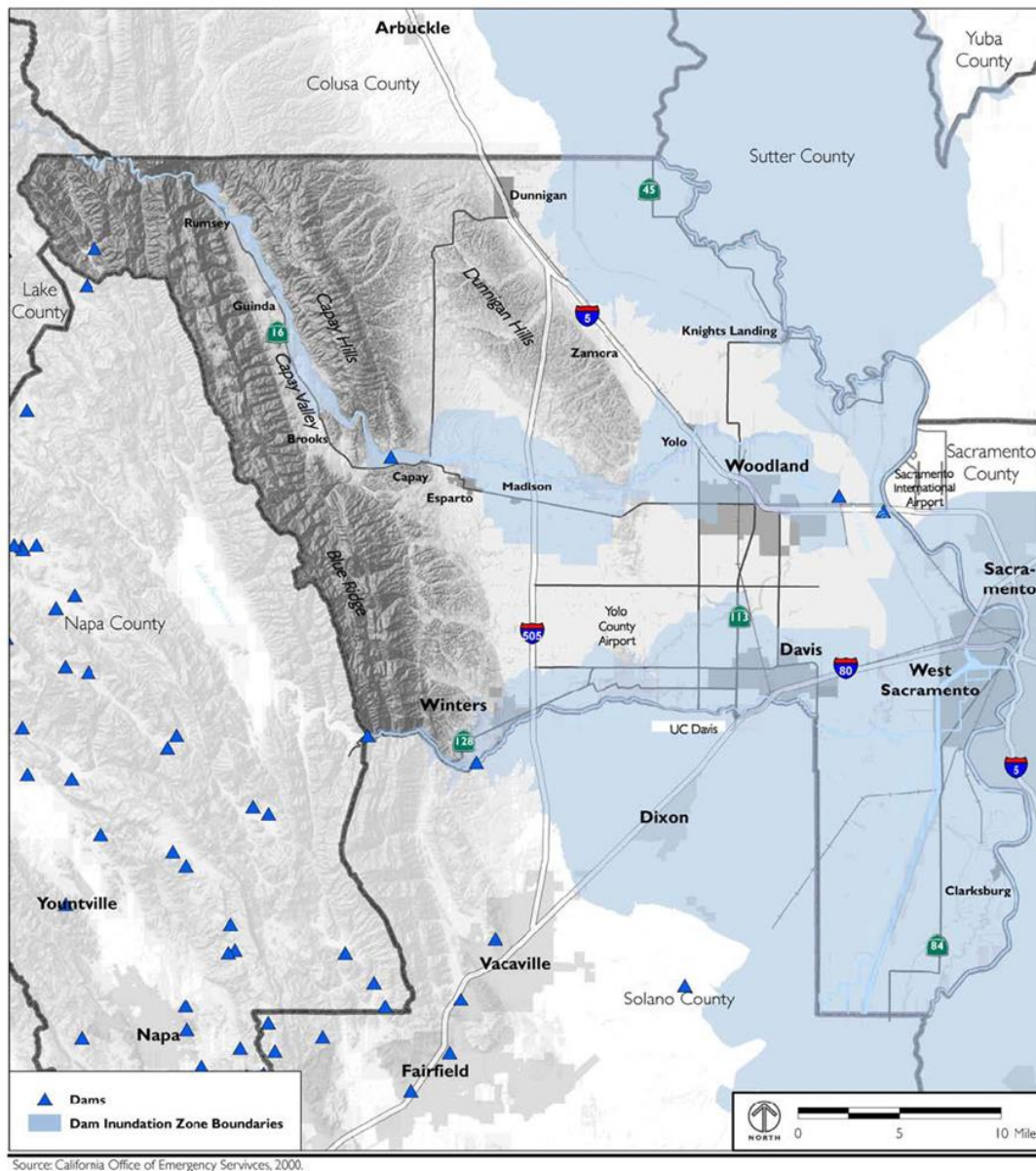


Figure 9: Dams and Dam Inundation Zones in and around Yolo County
Source: California Office of Emergency Services GIS Department

California has had about 45 failures of non-federal dams. The failures occurred for a variety of reasons, the most common being overtopping. Other reasons include specific shortcomings in the dams themselves or an inadequate assessment of surrounding geomorphologic characteristics.

California's first notable dam failure was in 1883 in Sierra County, while the most recent failure occurred in 1965. The most catastrophic event was the failure of William Mulholland's infamous St. Francis Dam, which failed in 1928 and killed an estimated 450 people, only slightly fewer than the 1906 San Francisco earthquake. The actual number of dead from the St. Francis Dam failure was likely substantially higher. San Francisquito Canyon, which was flooded in the event, was home to hundreds of transients and illegal immigrants who were never accounted for in the death totals.

No previous occurrences have occurred in Yolo County, however there have been recent minor failures to dams (Folsom and Oroville Dams) located outside of Yolo County. Based on information from the Sacramento County Hazard Mitigation Plan, there have been two dam failure incidents at Folsom Dam since 1994 that could have had the potential to affect Yolo County. However, these incidents were quite limited in scope and since the incidents occurred, improvements to the Folsom Dam system have been made.

July 17, 1995 – At the Folsom Dam, a spillway gate, gate #3 of Folsom Dam failed, increasing flows into the American River significantly. The spillway was repaired and the U.S. Bureau of Reclamation carried out an investigation of the water flow patterns around the spillway using numerical modeling. No flooding occurred as a result of the partial failure, but due to the location of the dam in proximity to the City of Folsom, possible flooding was a major concern.

May 15, 1997 – Cavitation damage to river outlet works occurred at Folsom Dam. Damage was discovered just downstream of gate #3. The damage consisted of a hole in the floor of the conduit measuring approximately 42 feet long, 15 feet wide, and 6 feet deep. Subsequent inspections of the other conduits revealed similar damage downstream of gate #4. Also, the beginning of cavitation damage was found downstream of gate #2. Minor damage was found in the other five conduits. No flooding was associated with this damage.

A steady barrage of storms in early 2017 resulted in serious damage to the Lake Oroville spillways. This included a concrete failure on the lower chute of the gated flood control spillway, severe erosion under the gated spillway, and erosion in the areas on the hillside beneath the emergency spillway. A mandatory evacuation was ordered in Butte, Yuba, and Sutter Counties. Yolo County acted swiftly to support the evacuees by opening a shelter located at the Yolo County Fairgrounds. The shelter was open for four days until the evacuation order was lifted.

A federal emergency declaration was declared for the Oroville Dam incident. The February storms of 2017 were exacerbated by the potential failure of the Lake Oroville Emergency Spillway and Yolo County proclaimed an emergency for the February storms (2/1 - 2/23/2017) and due to the impacts from the Oroville incident.

IMPACTS

Portions of Yolo County are located downstream of several dams with large inundation areas. In the unlikely event that any of these dams were to fail, the inundation zones indicate areas that could potentially be flooded. If the dams at Indian Valley Reservoir, Lake Berryessa or along the Sacramento, Feather or American rivers were to fail, the cities of West Sacramento, Winters and Davis would be entirely inundated by floodwaters, as would much of the city of Woodland. The unincorporated communities of Rumsey, Capay, Madison, Knights Landing and Clarksburg and parts of Guinda, Esparto, Monument Hills and Yolo are also located entirely within dam inundation zones.

Dam failure flooding would vary by community depending on which dam fails and the nature and extent of the dam failure and associated flooding. Based on the risk assessment, it is apparent that a major dam failure could have a devastating impact. Dam failure flooding presents a threat to life and property, including buildings, their contents, and their use (such as water treatment). Large flood events can affect crops and livestock as well as lifeline utilities (e.g., water, sewerage, and power), transportation, jobs, tourism, the environment, and the local and regional economies.

The failure of any of the dams previously mentioned could flood downstream areas and would result in loss of life and property. According to the jurisdictional dam response plans, a catastrophic failure of any of these dams would have a significant impact on Yolo County. Complete devastation could occur in and along the river bottoms and up the banks above normal river levels at a point from the dams themselves down river to near the ocean where the rivers widen. Water levels could be many times higher than those recorded in the worst floods. The potential magnitude of a dam failure depends on the time of year and the base flow in the river when the failure occurs. During the winter months when the river flows are higher, the impact to the area would be much greater and evacuation times much less.

EXTENT

Dam failure is rated as **Catastrophic** with more than 50 percent of the operational area potentially being affected by a failure of any one major dam. Parts of the County would be completely inundated.

PROBABILITY

Yolo County remains at risk to dam breaches/failures from numerous dams under a variety of ownership and control and of varying ages and conditions. Given the number and types of dams in and around the County, the potential exists for future dam issues in Yolo County. The probability of a catastrophic dam failure that would impact Yolo County and its jurisdictions is **Unlikely**: Less than 1 percent chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.

VULNERABILITY

Vulnerability of the Yolo County Operational Area to dam failure is reflected in the profile for each dam above. See Table 3 for the number of parcels and structure value of properties within the indentation of four dams that can impact the Yolo County Operational Area:

Dam Inundation Zone	Parcel Count	Structure Value	Areas Affected by Dam (Inundation Area)
Folsom	16,250	\$3,195,682,113	25,655 Acres
Monticello	21,347	\$5,128,545,854	111,530 Acres
Indian Valley	8,238	\$1,901,870,208	92,087 Acres
Shasta	930	\$63,035,925	71,775 Acres
Oroville	No information available		
Nimbus	No information available		

Table 3: Parcel Count and Structure Value Vulnerability within Inundation Zones

Source: Yolo County Assessor's Office

3.3.2 FLOODING

Flooding is the rising and overflowing of a body of water onto normally dry land. History clearly highlights floods as one of the most frequent natural hazard impacting Yolo County. Floods are among the costliest natural disasters in terms of human hardship and economic loss nationwide. Floods can cause substantial damage to structures, landscapes, and utilities as well as life safety issues. Floodwaters can transport large objects downstream, which can damage or remove stationary structures. Ground saturation can result in instability, collapse, or other damage. Objects can also be buried or destroyed through sediment deposition. Floodwaters can also break utilities lines and interrupt services. Standing water can cause damage to crops, road, foundations, and electrical circuits. Certain health hazards are also common to flood events. Standing water can also cause septic tank failure and well contamination. Standing water and wet structures can become breeding grounds for microorganisms such as bacteria, mold, and viruses. This can cause disease, trigger allergic reactions, and damage materials long after the flood. When floodwaters contain sewage or decaying animal carcasses, infections become a concern. Direct impacts, such as drowning, can be limited with adequate warning and public education about what to do during floods. Where flooding occurs in populated areas, warning and evacuation will be of critical importance to reduce life and safety impacts from any type of flooding.

Certain health hazards are also common to flood events. While such problems are often not reported, three general types of health hazards accompany floods. The first comes from the water itself. Floodwaters carry anything that was on the ground that the upstream runoff picked up, including dirt, oil, animal waste, and lawn, farm and industrial chemicals. Pastures and areas where cattle and other livestock are kept or their wastes are stored can contribute polluted waters to the receiving streams. Floodwaters also saturate the ground, which leads to infiltration into sanitary sewer lines. When wastewater treatment plants are flooded, there is nowhere for the sewage to flow. Infiltration and lack of treatment can lead to overloaded sewer lines that can back up into low-lying areas and homes. Even when it is diluted by flood waters, raw sewage can be a breeding ground for bacteria such as e. coli and other disease causing agents.

The area adjacent to a channel is the floodplain. Floodplains are illustrated on inundation maps, which show areas of potential flooding and water depths. In its common usage, the floodplain most often refers to that area that is inundated by the 100-year flood, the flood that has a one percent

chance in any given year of being equaled or exceeded. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program. The 200-year flood is one that has 0.5% chance of being equaled or exceeded each year. The 500-year flood is the flood that has a 0.2 percent chance of being equaled or exceeded in any given year. The potential for flooding can change and increase through various land use changes and changes to land surface, which result in a change to the floodplain. A change in environment can create localized flooding problems inside and outside of natural floodplains by altering or confining natural drainage channels. These changes are most often created by human activity.

Yolo County is susceptible to various types of flood events:

Riverine flooding – Riverine flooding, defined as when a watercourse exceeds its “bank-full” capacity, generally occurs as a result of prolonged rainfall, or rainfall that is combined with snowmelt and/or already saturated soils from previous rain events. This type of flood occurs in river systems whose tributaries may drain large geographic areas and include one or more independent river basins. The onset and duration of riverine floods may vary from a few hours to many days and is often characterized by high peak flows combined with a large volume of runoff. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution, the amount of soil moisture, seasonal variation in vegetation, snow depth, and water-resistance of the surface due to urbanization. In Yolo County, riverine flooding can occur anytime from November through April and is largely caused by heavy and continued rains, sometimes combined with snowmelt, increased outflows from upstream dams, and heavy flow from tributary streams. These intense storms can overwhelm the local waterways as well as the integrity of flood control structures. Flooding is more severe when antecedent rainfall has resulted in saturated ground conditions. The warning time associated with slow rise riverine floods assists in life and property protection.

Flash flooding – Flash flooding describes localized floods of great volume and short duration. This type of flood usually results from a heavy rainfall on a relatively small drainage area. Precipitation of this sort usually occurs in the winter and spring. Flash floods often require immediate evacuation within the hour and thus early threat identification and warning is critical for saving lives.

Localized/Stormwater flooding – Localized flooding problems are often caused by flash flooding, severe weather, or an unusual amount of rainfall. Flooding from these intense weather events usually occurs in areas experiencing an increase in runoff from impervious surfaces associated with development and urbanization as well as inadequate storm drainage systems.

The area is also at risk to flooding resulting from levee failures and dam failures. Dam failure flooding is discussed separately in the Dam Failure Section of this document; levee failure flooding is discussed separately in the Levee Failure Section of this document. Regardless of the type of flood, the cause is often the result of severe weather and excessive rainfall, either in the flood area or upstream reach.

A weather pattern called the “Atmospheric River” contributes to the flooding potential of the area. An Atmospheric River brings warm air and rain to West. A relatively common weather pattern brings

southwest winds to the Pacific Northwest or California, along with warm, moist air. The moisture sometimes produces many days of heavy rain, which can cause extensive flooding. The warm air also can melt the snow pack in the mountains, which further aggravates the flooding potential. In the colder parts of the year, the warm air can be cooled enough to produce heavy, upslope snow as it rises into the higher elevations of the Sierra Nevada or Cascades. Forecasters and others on the West Coast often used to refer to this warm, moist air as the “Pineapple Express” because it comes from around Hawaii where pineapples are grown. A diagram of an atmospheric river event is shown in Figure 10.

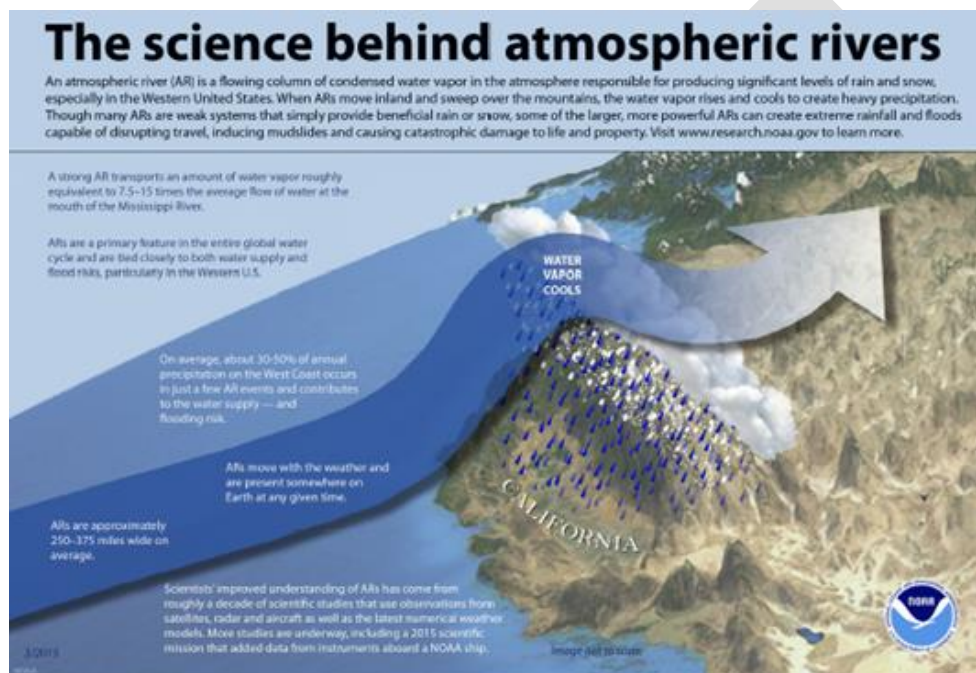


Figure 10: Diagram of an Atmospheric River Event
Source: NOAA

LOCATION AND PREVIOUS OCCURRENCES

California has 10 hydrologic regions. Yolo County sits in the Sacramento and San Joaquin hydrologic region. A map of the California's hydrological regions is provided in Figure 11:

CALIFORNIA **HYDROLOGIC REGIONS**

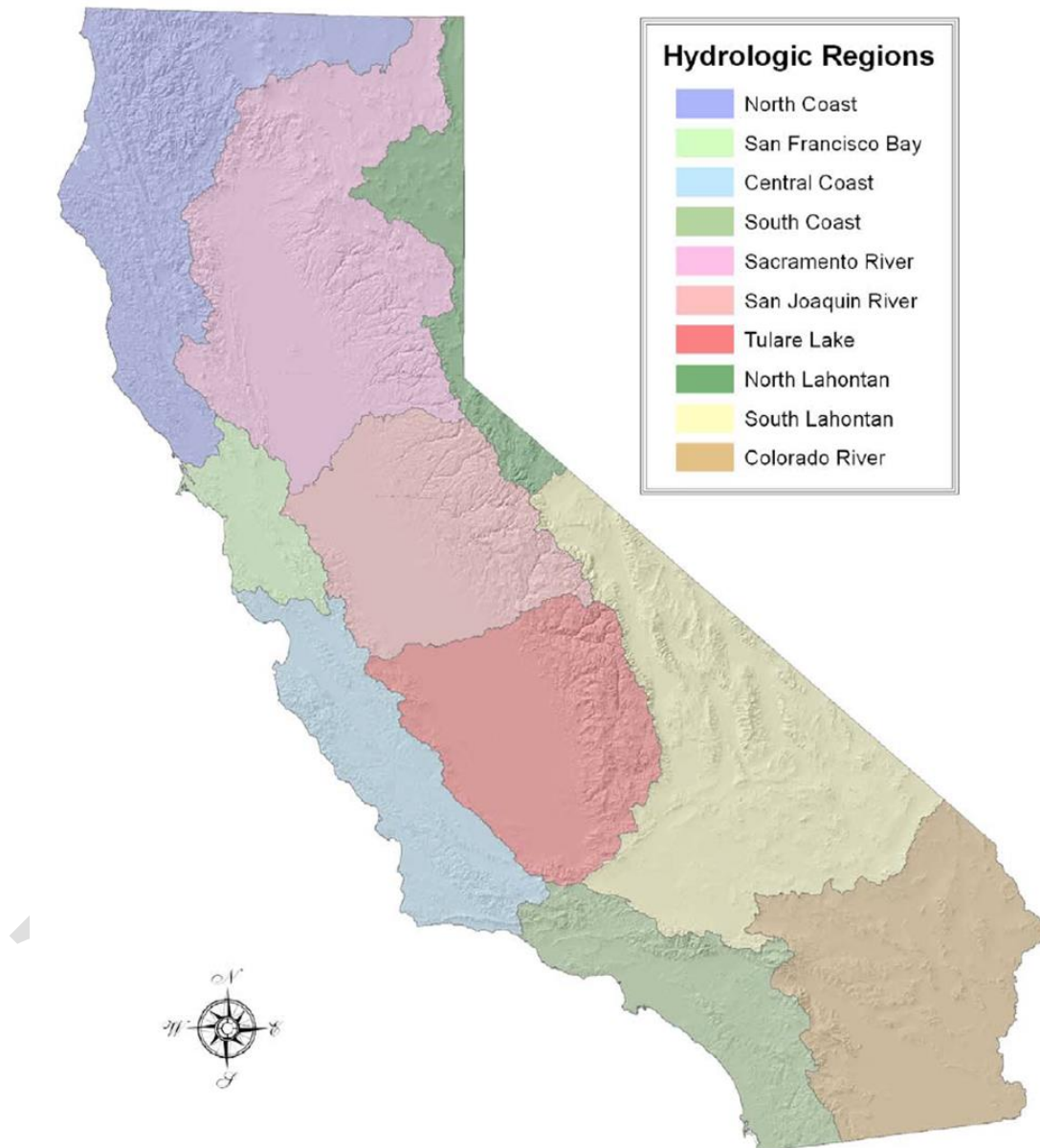


Figure 11: California Hydrologic Regions
Source: California Department of Water Resources

Yolo County encompasses multiple rivers, streams, creeks, and associated watersheds. Figure 12 illustrates the major waterways of Yolo County.

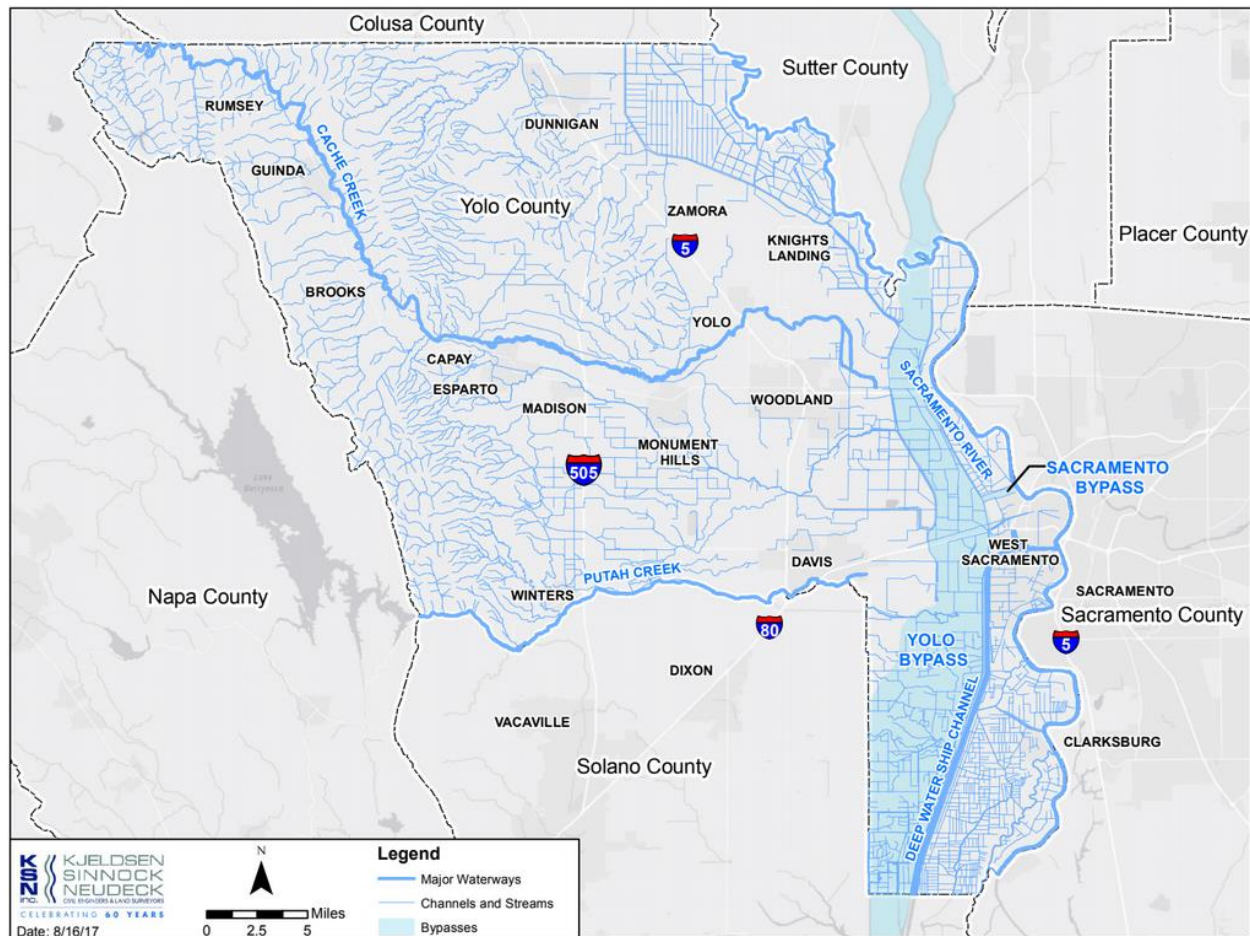


Figure 12: Waterways of Yolo County

Source: KSN Engineers

The following streams listed below are found in Yolo County.

- Cache Creek
- Putah Creek
- Dry Creek
- Buckeye Creek
- Oat Creek
- Bird Creek
- Willow Slough
- Cottonwood-Willow Slough
- Dry Slough
- Chickahominy Slough
- Lamb Valley Slough

The county itself is drained by the Sacramento River and Yolo Bypass, an integral part of the Sacramento River Flood Control Project. Two major streams, Cache Creek and Putah Creek, cross the county from west to east but drain only a small part of the county. Cache Creek originates at the outlet of Clear Lake in Lake County to the west. With its main tributaries (North Fork Cache Creek, Bear Creek, and Clear Lake), it drains 1,140 square miles, and has a maximum elevation of 6,100 feet. Putah Creek originates in the west at an elevation of 3,000 feet and drains 634 square miles in Lake, Napa, and Yolo Counties. Both Cache and Putah Creeks empty into Yolo Bypass on the eastern side of the county. Willow, Cottonwood, Chickahominy, and Dry Sloughs, located in the southern part of the county between Cache Creek and Putah Creek, drain approximately 204 square miles at the western edge of the county and convey flows to the leveed Willow Slough Bypass that drains to Yolo Bypass; maximum elevations are near 2,500 feet. The Hungry Hollow watershed, located north of Cache Creek and between the Capay and Dunnigan Hills, drains 55 square miles and is a tributary of Cache Creek.

Dry Creek, which drains an area of 22.7 square miles, flows southeasterly near the western edge of the City of Winters and joins Putah Creek south of the city. Dry Creek originates on the steep slopes of Rocky Ridge, a part of the Coast Range.

The northern part of the county is drained by intermittent streams, such as Buckeye, Oat, and Bird Creeks that flow easterly from the Dunnigan Hills to the Colusa Basin Drainage Canal. The canal drains 1,700 square miles in Glenn, Colusa, and Yolo Counties and conveys flows to the Sacramento River at Knights Landing or to Yolo Bypass via Knights Landing Ridge Cut, depending on water-surface elevations in the Sacramento River. The area between the Sacramento River and Yolo Bypass in the southeastern part of the county is drained mostly by pumping. Flows in Yolo Bypass return to the Sacramento River near Rio Vista, 10 miles south of the southern limits of Yolo County.

Cache Creek

Originating at the outlet of Clear Lake in Lake County, Cache Creek drains approximately 1,100 square miles and has an elevation drop of 6,100 feet from its headwaters to its discharge into the Yolo Bypass. The Sacramento Maintenance Yard (SMY) area of responsibility begins at 6,000 feet upstream of the California Northern Railroad on the north bank of Cache Creek and approximately 3,000 feet upstream of the same railroad on the southern bank of Cache Creek. SMY's responsibilities continue downstream until Cache Creek discharges into the Yolo Bypass. SMY is also responsible for the East Training Levee which is located along the western edge of the Cache Creek Settling Basin. Areas of the Capay Valley, particularly sections of Yocha Dehe Wintun Nation housing, are susceptible to flooding from Cache Creek where there are no levees in place.

The channel design capacity of Cache Creek is 33,000 cubic feet per second (cfs) which according to the FEMA Flood Insurance Study for Yolo County equates to approximately a 10 year flood event.

In addition to the levees there are several other flood control infrastructure; specifically the Settling Basin and the Settling Basin Overflow Weir. The Settling Basin is designed to remove excess sediment from Cache Creek before it discharges into the Yolo Bypass and has a handling capacity of 30,000 cfs.

The Settling Basin Overflow Weir is the primary control structure for the Settling Basin. The Overflow Weir is currently at elevation 35 (NAVD 88) which results in the Settling Basin being able to handle a flow rate of 30,000 cfs.

The Cache Creek levees primarily protect the City of Woodland and surrounding lands. The areas of Woodland most susceptible to flooding include the industrial areas on the north side of town; these areas experienced flooding when Cache Creek overtopped its banks in 1986.

Putah Creek

Putah Creek has its headwaters on the eastside of Cobb Mountain in Lake County. From those springs, it flows to the south and east eventually into Lake Berryessa. Leaving Lake Berryessa via the Monticello Dam, it continues to flow eastward past Winters and Davis before its confluence with the Yolo Bypass/Toe Drain. Housing in Winters and Davis is particularly susceptible to flooding from Putah Creek.

SMY's responsibilities begin approximately a third of a mile upstream of Hopkins Road near the University of California Davis Airport and continue downstream on both banks of Putah Creek. The south bank levee ends approximately a quarter of a mile upstream of Road 106. The north bank levee turns towards the north approximately one mile downstream of Road 106A after which it continues north until it joins the Willow Slough south bank levee.

Monticello Dam restricts the flows on Putah Creek to well below the levee system's design capacity. Flows from Monticello Dam generally do not exceed 30,000 cfs and in general do not rise to the riverward toe of the levee.

Willow Slough Bypass

Situated between the Cache Creek and Putah Creek Watersheds, the Willow Slough Watershed drains approximately 191 square miles of primarily agricultural lands. Willow Slough Bypass is formed by an agricultural diversion weir just downstream of the California Northern Railroad. The South Fork of the Willow Slough runs to the north of Madison, and along with sheet flow contributes to much of the periodic flooding in the town. Buildings throughout Madison, including residences, local businesses, the fire station, school, and community hall are all susceptible to flooding events. Esparto is also vulnerable to flooding as creeks and ditches can back up onto streets due to clogging from vegetation.

SMY's operations and maintenance responsibilities begin at the weir which diverts flows into the Willow Slough Bypass. The entirety of Willow Slough Bypass is leveed until it discharges into the Yolo Bypass. SMY has jurisdiction over the entire south bank levee, while its area of responsibility on the north bank levee only extends as far downstream as the east side of the water pollution control plant. East of the water pollution control plant the Willow Slough Bypass levees are maintained by Reclamation District 2035.

The Willow Slough Bypass has a design capacity of 6,000 cfs. The Davis water pollution control plant releases effluent into the Willow Slough Bypass. Additionally water behind the levees originating from Davis Drain are pumped into the Willow Slough Bypass approximately one mile upstream of County Road 105.

The Willow Slough Bypass levees protect the City of Davis, Davis' water pollution control plant, Yolo County central landfill and agricultural land.

Yolo Bypass

The 3-mile wide, 40 mile long Yolo Bypass is a man-made leveed channel that extends from the Fremont Weir to a point above the City of Rio Vista, where it returns excess flows to the Sacramento River. The primary purpose of the Yolo Bypass is to provide flood protection to the Sacramento and West Sacramento on the Sacramento River. High water levels on the Sacramento River result in water passing into the Yolo Bypass via the Fremont Weir and Sacramento Weir (when opened).

The levees maintained by SMY within Yolo County begin at the upstream end of the Yolo Bypass at the Fremont Weir on both the east and west sides. There is a gap in coverage south of the Wallace Weir on the west side of the Yolo Bypass which is ended by the Cache Creek levees. The eastern side of the Cache Creek Settling Basin protects against backwater from the Yolo Bypass. Downstream of the Cache Creek Settling Basin, the levees are operated and maintained by Reclamation District 2035 until the south bank of Willow Slough Bypass, where SMY picks up operations and maintenance responsibilities once more. The levees maintained and operated by SMY continue along the west side of the Yolo Bypass until the north bank of Putah Creek. In addition to the levees which form the Yolo Bypass, there are several other flood control related structures.

The Fremont Weir is the upstream limit of the Yolo Bypass. High stages in the Sacramento River result in water flowing over the Fremont Weir and thus into the Yolo Bypass. By having the water leave the Sacramento River and enter into the Yolo Bypass, stress on levees downstream on the Sacramento River are reduced and provides a flood risk reduction for the Cities of West Sacramento and Sacramento.

Much like the Fremont Weir, the Sacramento Weir is intended to relieve pressure on the Sacramento River levees by diverting flows from the Sacramento River into the Yolo Bypass. Unlike the Fremont Weir, the Sacramento Weir is only used during exceptionally high flow events. In order to allow the Sacramento Weir to pass water, each gate must be manually opened.

The Wallace Weir at the southern end of the Knights Landing Ridge Cut (KLRC) and is intended to prevent fish from entering the KLRC and becoming entrapped in either it or the Colusa Drain.

The Delta Region lies within a floodplain and is faced with a major flooding problem because of inadequate levee construction and maintenance, subsidence, seepage, erosion and seismicity.

The Delta area as a whole has been reclaimed by about 1,100 miles of levees along natural and constructed waterways that segregate it into about 120 tracts locally known as islands. The entire region of approximately 700,000 acres is under the influence of the tides and a large part of the land surface is lower than the water on the opposite side of the levees. Many of the islands are 15 to 25 feet below sea level due to the subsidence of the peat land structure. The numerous waterways and channels convey runoff to lower areas of the Delta and eventually to the Pacific Ocean.

Flood fighting has occurred in some part of the Delta on the average of once every four years. While most of the Delta levees in Yolo County have stood the test of time, they defy engineering logic. Their foundations are soft and uncertain, they have a great deal of vegetation including large trees, and they suffer erosion and sloughing due to river velocity and wind wave wash. Nevertheless, they have served the county very well over many years.

The Delta Islands are subsiding due to lower groundwater, aeration of peat soils, and loss of soil to wind. While some believe, the rate has been curbed over the past years due to conservation protocols, the fact is that some islands are 15' below sea level. The levees work much harder than they did a hundred years ago.

Some of the Delta levees essentially serve as a dam repressing hydrostatic pressure every day of the year. This leads some researchers to conclude that the potential for catastrophic failure of the Delta levees due to a seismic event has a concerning probability.

Responsibility for flood protection is distributed among many agencies at various levels of government. At the federal level the three primary agencies are the Army Corps of Engineers, FEMA, and the Bureau of Reclamation. At the state level the primary agencies are Department of Water Resources and the Central Valley Flood Protection Board. At the local level in Yolo County and the region these agencies include: the County of Yolo and several of its cities; the Yolo County Flood Control & Water Conservation District and various Levee Maintaining Agencies.

Yolo County Flood Control and Water Conservation District

Since its creation in 1951, the Yolo County Flood Control & Water Conservation District has served the needs of the local community by managing water resources for farming while stabilizing groundwater for other uses with progressive and pro-active water planning.

Today, the District manages three dams, two hydroelectric plants, two reservoirs, more than 150 miles of canals and laterals and one of the world's longest, inflatable rubber dams. District boundaries encompass 195,000 acres of Yolo County, including the cities of Woodland, Davis and Winters, and the towns of Capay, Esparto, Madison and other small communities within Capay Valley.

Yolo County's primary source of agricultural water comes from 50 miles away in Lake County. The District obtained the rights to store water in Clear Lake in 1967 when it purchased the privately owned Clear Lake Water Company and the Cache Creek Dam. This gave the District the potential to release up to 150,000 acre-feet of water annually.

However, the District's water right to store water in Clear Lake did not provide enough water to

supply farmers during dry years, therefore the District constructed the Indian Valley Dam and Reservoir in 1974-1975. - With the completion of the Indian Valley Reservoir in 1975, the District's water resources became less vulnerable to the dry years which often limit water supplies in Yolo County. The six-mile long, one-mile wide reservoir with a gross capacity of 300,600 acre feet, provides long-term irrigation storage. The District manages the water that the reservoir holds by releasing it as needed. The dam includes a hydroelectric plant. The cost of the dam and reservoir exceeded \$9 million and were funded, in part by two bond issues that were retired on time leaving only a loan, originally scheduled to be retired in 2017. However, due to careful financial management, that loan was retired in 1998 making the project debt free.

The total water supply available to the District water users include surface water from Clear Lake, Indian Valley and Cache Creek, and groundwater recharged by the District's operations. In all, the District has surface water storage averaging, over a long term, nearly 200,000 acre-feet per year.

The Yolo Water and Power Company finished construction of Cache Creek Dam in 1914. It is situated five miles downstream of Clear Lake and was built to store winter water in Clear Lake that would normally run-off into the Sacramento River. Cache Creek is the outlet from Clear Lake, but a rock ledge known as the Grigsby Riffle limits rate at which water can flow past. In 1998, the spill gate of the dam was modified to increase safety and minimize damage from floating debris.

The Capay Diversion Dam is located approximately two miles above the town of Capay on Cache Creek. This dam was built by the Yolo Water & Power Company and it serves as the headworks for the canal system. Here, the water released from Clear Lake and Indian Valley Reservoir is diverted into the West Adams and the Winters canals, which then feed the entire canal system. The Capay Dam underwent a major renovation in 1994 which included the installation of one of the longest inflatable dams in the world. The inflatable dam improves safety and the District's ability to deliver water.

Located at the base of the western foothills, north of the town of Winters, the Chapman Reservoir is a small, 280 acre-foot dual-purpose reservoir the District maintains for flood control and irrigation purposes.

Levee Maintaining Agencies

The Levee Maintaining Agencies are discussed in the Levee Failure Profile.

1. Reclamation District 150
2. Reclamation District 537
3. Reclamation District 765
4. Reclamation District 785
5. Reclamation District 827
6. Reclamation District 900
7. Reclamation District 999
8. Reclamation District 1600
9. Reclamation District 2035

10. Reclamation District 2068
11. Reclamation District 108
12. Reclamation District 787
13. Knights Landing Ridge Drainage District
14. Sacramento River Westside Levee District

Predominantly, the Delta remains agriculturally oriented, as evidenced by the fact that more than three-fourths of the entire Delta area is devoted to a wide variety of crops.

The climate in Yolo County is characterized by warm, dry summers and cool, wet winters. The average range of temperatures is between 36 degrees Fahrenheit (°F) in December and 95°F in July. Record extremes range from 11°F to 116°F. Annual rainfall ranges from 16 inches on the valley floor to 30 inches in the mountainous areas at the western edge of the county. Precipitation is primarily of frontal origin, with over 85 percent occurring from November through March. The quantity of storm runoff is greatly affected by the soil type. Soils in the relatively flat farmlands in the eastern part of Yolo County contain appreciable amounts of clay that cause high runoff rates and flooding in the mildly sloping eastern part of the county.

Major flooding has occurred in Yolo County in 1937-38, 1940, 1943, 1950, 1955, 1958, 1963, 1967, 1973, 1975, and 1986 (U.S. Department of Agriculture, 1969; State of California, 1964; State of California, 1969; FEMA, 1981; U.S. Department of Agriculture, 1976). Flooding generally occurs in the relatively flat agricultural lands within the eastern two-thirds of the county. Yolo County received two disaster declarations for flooding in 2017 but these declarations primarily concerned levee damages. There were road damages throughout Yolo County as a result of stopped up culverts, but flooding was minimal.

Since the completion of Monticello Dam on Putah Creek (Lake Berryessa) in Napa County, flooding from Putah Creek and Cache Creek (the two largest streams flowing from west to east across the county) occurs only from Cache Creek overflow in the Capay Valley and south of Cache Creek near the City of Woodland, where flooding occurred in 1958 (FEMA, 1981). Flooding also occurs north of Cache Creek in the lowlands of the Hungry Hollow watershed, which is a tributary of Cache Creek. The largest flood in the Cache Creek drainage in recent years occurred during February 1958 and was estimated to be a 4-percent annual chance event (State of California, 1969).

In the northern part of the county, flooding occurs along the Colusa Basin Drainage Canal. Flooding results when precipitation within the basin and runoff from the foothill region to the west combine to far exceed the channel capacity of the canal. The greatest flooding in recent years was in 1958, when flooding along the canal extended 70 miles upstream from Knights Landing (State of California, 1964). Flooding also occurs in the spring and is caused by irrigation practices in the rice fields. Damage can be greater during the spring runoff because it occurs during the growing season.

Flooding frequently occurs in the Cottonwood-Willow Slough watershed south of Cache Creek and in the Dry Slough/Davis watershed north of Putah Creek. The adjacent watersheds are part of the Yolo Creek System. Flows originating in the western part of the watersheds exceed the channel capacity

of Dry and Willow Sloughs and their major tributaries, Chickahominy Slough and Lamb Valley Slough, and cause flooding in the relatively flat agricultural lands in the eastern part of the county. Flooding is increased at the eastern side of the county when Sacramento River flows are diverted into Yolo Bypass and gravity flow to the bypass is eliminated. Severe flooding occurred along the Sacramento River and Yolo Bypass in February 1986. Floodwaters pond behind the Yolo Bypass and Willow Slough Bypass levees until flood flows in the bypasses recede.

IMPACTS

The impact from any flooding event will vary based upon a number of factors: source of the water; location of water flow; duration of rainfall or source release; topography; presence and/or effectiveness of flood control systems; changes in land use and vegetation; and emergency response preparedness and action. Resulting damage could include the following:

- Injury and death associated with people being trapped in rapidly moving waterways or caught unaware during slow rise conditions
- Injury and death for individuals attempting to walk or drive across flooded roadways
- Damage to critical infrastructure and essential services through inundation
- Damage to roadways, bridges, and other transportation structures affecting mobility and the ability for people to evacuate flooded areas
- Release of hazardous materials and starting of fires within damaged or affected structures
- Damage to buildings and structures in the pathway of rising flood waters
- Public health hazards from contamination of potable water sources; damage to sanitation systems; long term presence of standing water; vector infestation; and introduction of hazardous materials contaminants
- Loss of agricultural products and crops from inundation
- Impact to local economy stemming from loss in agricultural, industrial, and commercial productivity
- Societal impacts involving long-term interruption of normal activity

The risk of localized flooding to future development can be minimized by accurate recordkeeping of repetitive localized storm activity. Mitigating the root causes of the localized stormwater or choosing not to develop in areas that often are subject to localized flooding will reduce future risks of losses due to localized flooding.

The potential for flooding may increase as storm water is channelized due to land development. Such changes can create localized flooding problems in and outside of natural floodplains by altering or confining natural drainage channels. Floodplain modeling and master planning should be based on the ultimate built-out land use in order to assure that all new development remains safe from future hydrologic conditions. While local floodplain management, stormwater management, and water quality regulations and policies address these changes on a site-by-site basis, their cumulative effects can result in floodplain impacts regardless.

Additional growth in or around the cities and in the unincorporated areas of the County could contribute to increased flooding in the county. Many historic and cultural resources are located in the mapped flood zones.

Health hazards and property damage may occur at residential dwellings and businesses in the affected areas if proper flood clean-up actions are not conducted immediately. Contamination due to flooded sewage systems will pose a risk to health and safety of persons in the affected areas. The continued impedance of floodway maintenance from governmental regulators that often delay, increase the cost of, restrict, and in some cases stop, will continue to place Yolo County residents at risk to flooding from internal drainage as well as from levee failure.

The impact of damage resulting from the flooding hazard, as mentioned, can be extremely variable. Nevertheless, most damage results from rising water that inundates residences and buildings, damage to infrastructure and critical facilities, and loss of ingress and egress by the population in the affected areas and the inability of the jurisdictions emergency response capabilities. Damage from flooding can range from minimal, where the damage to an individual home can be on the order of a few thousand dollars to the complete loss of a building or loss of life from the inability to evacuate from the rising floodwaters.

EXTENT

Flooding is rated as **Critical** with between 35-50 percent of the operational area affected by any one storm.

PROBABILITY

Based on previous occurrences of flooding, the probability in Yolo County and its jurisdictions is **Likely**: Between 10 percent and 100 percent chance of occurrence in next year or has a recurrence interval of 10 years or less.

VULNERABILITY

Historically, Yolo County has always been vulnerable to flooding because of its relatively flat terrain and the number of water courses that traverse the County. Flood zones in Yolo County are quite extensive. Several areas of the County are subject to flooding by the overtopping of rivers and creeks, levee failures, and the failure of urban drainage systems that cannot accommodate large volumes of water during severe rainstorms.

Based on FEMA guidance, contents value is estimated at 50 percent of the improved value. Estimated losses assume that a flood is unlikely to cause total destruction. Losses are related to a variety of factors, including flood depth, flood velocity, building type and construction. Using FEMA's recommendations, average damage is estimated to be 20 percent of the total building value.

The loss estimates for this assessment should be used for flood risk mitigation, emergency preparedness, and response and recovery only. Uncertainties are inherent in any loss estimation methodology and losses will vary depending on the magnitude of the flood event. Other limitations may include incomplete or inaccurate inventories of the built environment. The assessed values, for example, are well below the actual market values; thus, the actual value of assets at risk may be

significantly higher than those included therein. Also, this loss estimation assumes no mitigation and does not account for buildings that may have been elevated above the 1% annual chance event according to local floodplain management regulations. See Table 4 for estimated flood losses in Yolo County by jurisdiction:

Jurisdiction	Parcel Count	Structure Value	Est. Contents Value	Total Value	Loss Estimate
Davis	1,050	\$551,081,152	\$275,540,576	\$826,621,728	\$165,324,346
West Sacramento	16,444	\$3,267,659,420	\$1,633,829,710	\$4,901,489,130	\$4,980,297,826
Winters	181	\$30,379,717	\$15,189,859	\$45,569,576	\$9,113,915
Woodland	907	\$623,011,224	\$311,505,612	\$934,516,836	\$186,903,367
Yocha Dehe Wintun Nation	5	\$14,454,667	\$7,227,334	\$21,682,001	\$4,336,400
Unincorporated Yolo County	5,086	\$576,148,561	\$288,074,281	\$864,222,842	\$172,844,568

Table 4: Yolo County 100-Year Flood Loss Estimates by Jurisdiction

Source: Yolo County Assessor's Office

Specific areas of flooding vulnerability are mentioned in the narrative above for each waterway.

3.3.3 LEVEE FAILURE

Levee failure flooding can occur as the result of partial or complete collapse or underseepage of an impoundment, and often results from prolonged rainfall and flooding. The primary danger associated with dam or levee failure is the high velocity flooding of those properties downstream of the breach.

A levee failure can range from a small, uncontrolled release to a catastrophic failure. Vulnerability to levee failures is generally confined to the areas subject to inundation downstream of the facility. Secondary losses would include loss of the multi-use functions of the facility and associated revenues that accompany those functions.

Approximately 150 years ago, the levees of the Sacramento-San Joaquin Delta were raised to prevent flooding on what remains some of the most fertile farmland in the nation. While the peat soils were excellent for agriculture, they were not the best choice to create strong foundations for levee barriers meant to contain a constant flow of river water. Nevertheless, it was these native soils that were primarily used to create the levee system.

Levee failure flooding would vary in the County depending on which structure fails and the nature and extent of the failure and associated flooding. This flooding presents a threat to life and property, including buildings, their contents, and their use. Large flood events can affect lifeline utilities (e.g., water, sewerage, and power), transportation, jobs, tourism, the environment, agricultural industry, and the local and regional economies.

Lands within the Levee Flood Protection Zones may be subject to flooding due to various factors, including the failure or overtopping of project or non-project levees, flows that exceed the design

capacity of project or non-project levees, and flows from water sources not specifically protected against by project levees. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with U.S. Army Corps of Engineers guidelines. Lands not mapped within a Levee Flood Protection Zone are not invulnerable to flood risk, and some may also experience flooding from these or other related events.

Characteristics of Primary Waterways

The Sacramento River runs along the east side of the Colusa Basin and Knights Landing Basin in a single meandering channel. In general, the ground elevation descends from the Sacramento River southwestward toward the Colusa Basin Drain and the Yolo Bypass in the west. Floodwaters from a breach along the Sacramento River levees will, therefore, flow generally southwest or southeast toward the Knights Landing Ridge Cut and the Yolo Bypass rather than directly parallel along the river. One relief structure, the Fremont Weir connects the Sacramento River with the Yolo Bypass. The Fremont Weir is intended to remove water from the Sacramento River in order to lower water elevations downstream. On the north side of the Town of Knights Landing, the Knights Landing Outfall Gates and channel allows water to pass between the Sacramento River and the Colusa Drain. These gates protect the lower Colusa Drainage Basin from backwater of the Sacramento River and assist with agricultural irrigation operations during the dry season. High flows from the American River at its confluence with Sacramento River in Sacramento can cause the Sacramento River to flow backwards.

The Colusa Drain runs along the western side of the Knights Landing Ridge Drainage District Levee and receives water flows from streams and creeks originating in the Coast Range along with local drainage from the north. Flood waters in the Colusa Drain are contained by levees on its east side maintained from north to south by Maintenance Area 12, Reclamation District 108, and Reclamation District 787. At the south end of the Drain, flood waters pool at the Knights Landing Ridge and flow through the Knights Landing Ridge Cut into the Yolo Bypass. The Knights Landing Outfall Structure and channel connects the Colusa Drain with the Sacramento River at this point to allow controlled water flow between those two waterways.

The Yolo Bypass runs along the western side of the Elkhorn basin and the boundaries of all districts with the exception of the section of RD537 north of the Sacramento Weir. The Yolo Bypass receives water from the Colusa Drain, the Sacramento and Feather Rivers, the Sutter Bypass, and streams and creeks along its west side. At the northern end of the Bypass and the junction of the primary waterways mentioned, the Fremont Weir controls the entry of water into the Bypass.

The Sacramento Bypass runs along the south end of the Elkhorn Basin District along the southern boundary of RD785 and RD537. The Sacramento Weir relieves flow from the Sacramento River and American River into the Yolo Bypass. Sacramento Bypass levees are maintained by the Department of Water Resources as State Maintained Area 8. The 1,920 ft. long weir consists of 48 gates that divert Sacramento River (and American River) floodwaters west down the mile-long Sacramento Bypass and discharges them into the Yolo Bypass.

Reclamation District No. 150 – Merritt Island maintains levees surrounding Merritt Island, protecting 4,740 acres of mostly agricultural land (vineyards and orchards) and approximately 238 residents. The District is located within Yolo County and is bounded by Elk Slough and on the east, the Sacramento River on the west, and Sutter Slough on the South (see Figure 13). Elk Slough has a water control structure and earthen levee across the mouth of the slough on the Sacramento River. The water control structure is operated by RD999 during periods of high flows to prevent flow from the slough on the upstream end. The structure also limits flows based on the lower water end elevations and flows from Sutter Slough.

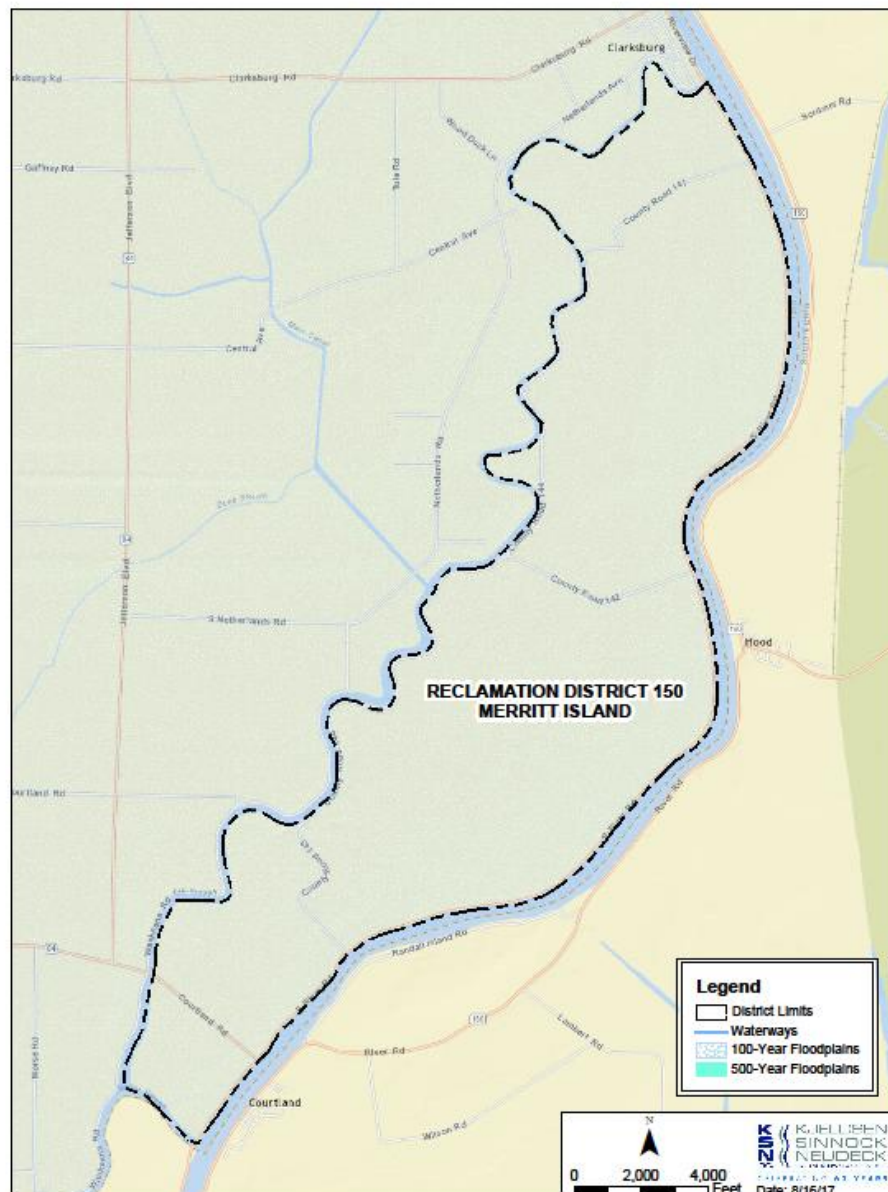


Figure 13: Reclamation District 150
Source: KSN Engineers

District levees are vulnerable to wave wash and erosion on the east levee along the Sacramento River. Additional areas of levee vulnerability include:

- At the Courtland Road (Elk Slough to Road 143) there are seepage issues which were fixed 15 years ago and the toe was rebuilt; however, there are multiple boils and the underseepage issues continue.
- Along the water side of the levee from Elk Slough to Clarksburg there is a vertical drop, likely due to erosion, down to the water. During high water events this is an area where rock has to be added. The worst seepage area is a 2-mile stretch from Road 143 toward Road 142.
- Seepage along the north end of the Sacramento River. There is erosion along the waterside as well.
- The levee along Sutter Slough is built on top of pure sand and there are underseepage issues.

Agricultural land, including vineyards and orchards, would be susceptible to a levee failure in RD and economic losses would be prevalent.

Reclamation District (RD) 307 provides water drainage and flood control services within its gross service area of 6,000 acres. The District and its sphere of influence are located within Yolo County on the west bank of the Sacramento River approximately 5 miles south of the City of West Sacramento (see Figure 14). The District's topography is relatively flat and is confined by the following surface water features and engineered channels: the Sacramento River, the Babel Slough, and Winchester Lake. The Sacramento River has a design capacity of 100,000 cfs along RD307 levees on that waterway.

The District is in the "flood plain" but no portion of the District is within a floodway. The District maintains 6.59 miles of levees that run adjacent to the Sacramento River. Small non-project levees run along Winchester Lake on the south side of the District and along Babel Slough on the west side. The entire District is within the legal Sacramento-San Joaquin Delta District and within the scope of the Sacramento River Flood Control Project, as approved by the US Army Corps of Engineers (USACE), Department of Water Resources (DWR) and the Central Valley Flood Protection Board (CVFPB).

In addition to its levees, District-maintained infrastructure includes a main District pump station and approximately 136,900 feet of drainage canals, ditches, and laterals. The District pump system discharges internal drainage into waterways and moves irrigation water from waterways into the District irrigation system. The District is in a rural setting with a nominal growth rate. The current population is approximately 73 permanent residents. Most of the land in the District is in agricultural use, primarily grapes, vegetables, and grain production that would be vulnerable to a levee failure.

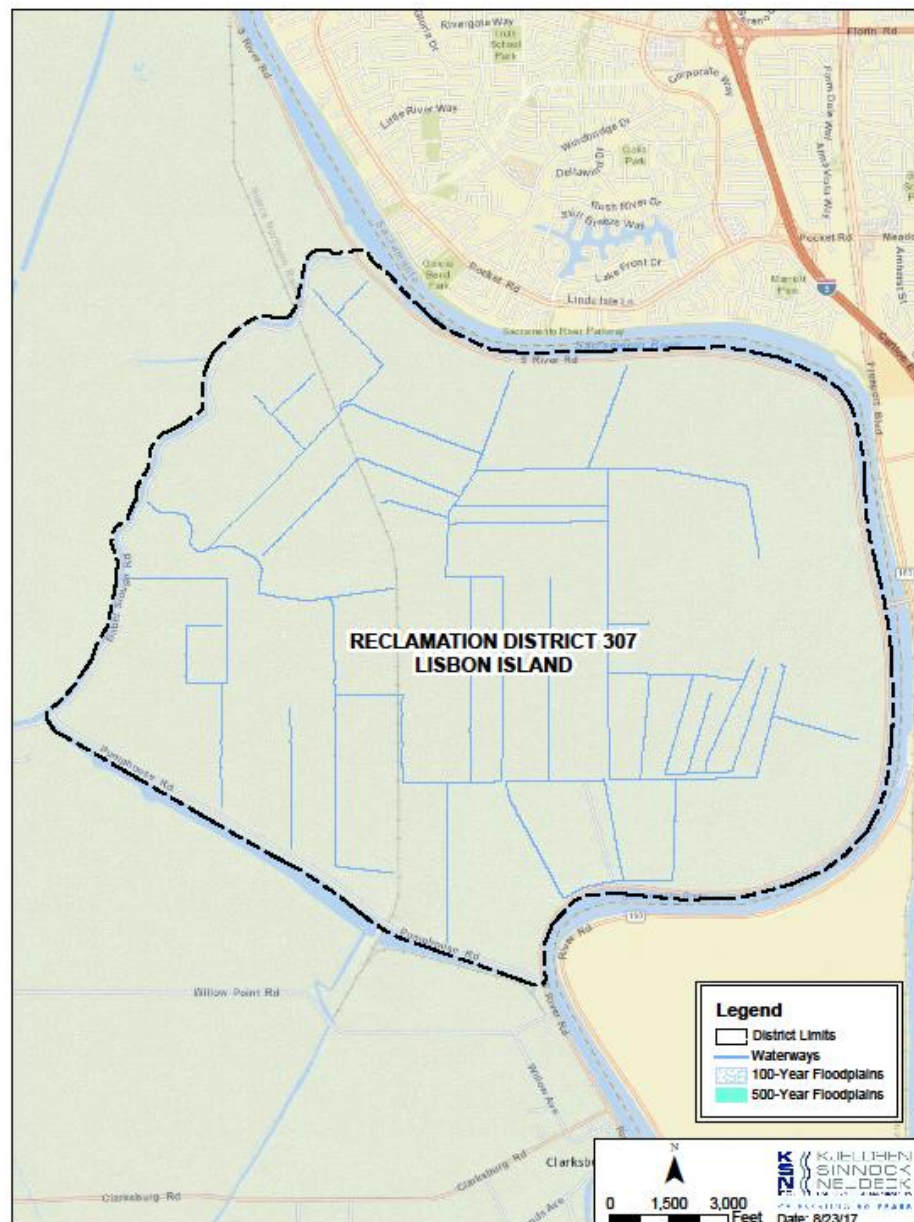


Figure 14: Reclamation District 307
Source: KSN Engineers

Reclamation District (RD) 999 provides water drainage, flood control, and irrigation services within its gross service area of 22,000 acres. The District and its sphere of influence are located within Yolo and Solano Counties, beginning approximately 5 miles south of the City of West Sacramento (see Figure 15). The District's topography is relatively flat and is confined by the following surface water features and engineered channels: the Sacramento River, the Yolo Bypass/Deep Water Ship Channel, Minor Slough, Sutter Slough, and Elk Slough. The Sacramento River has a design capacity of 100,000

cfs along RD999 levees on that waterway. The Deep Water Ship Channel contains backwater from the Yolo Bypass and Sacramento River at Cache Slough and has no current, but is susceptible to tidal flows.

The District is in the “flood plain” but no portion of the District is within a floodway. The District maintains 33 miles of levees. District levees run adjacent to the Sacramento River along approximately 1.22 miles, adjacent to the Deep Water Ship Channel along approximately 15.43 miles, adjacent to Minor Slough along approximately 2.32 miles, adjacent to Sutter Slough along approximately 3.74 miles, and adjacent to Elk Slough along approximately 9.66 miles. The entire District is within the legal Sacramento-San Joaquin Delta District and within the scope of the Sacramento River Flood Control Project, as approved by the Army Corps of Engineers (USACE), Department of Water Resources (DWR) and the Central Valley Flood Protection Board (CVFPB).

In addition to its levees, District-maintained infrastructure includes 13 drainage pumping facilities, approximately 260 miles of drainage canals, ditches, and laterals. The District pump system discharges internal drainage into waterways and moves irrigation water from waterways into the District irrigation system. The District is in a rural setting with a nominal growth rate, and there are numerous vulnerabilities to the area from the threat of levee failure. The current population is approximately 1,500 permanent residents primarily in the Town of Clarksburg. There are also several large winery events that take place in Clarksburg and may attribute to an increase in persons at certain times of the year. A levee threat could require a large-scale evacuation, particularly when a large event is going on. Most of the land in the District is in agricultural use and is susceptible to flooding from a potential levee failure; these areas consist primarily of grapes, vegetables, and grain production. Numerous ag-related businesses operate in the District and several commercial businesses, including the Old Sugar Mill, operate in and around Clarksburg and could be threatened from inundation caused by a levee failure. The Clarksburg area has not flooded since the original levee system was completed. Downtown Clarksburg is at a higher elevation than the rest of the district. However, only about 1/3 of the Clarksburg District population lives in town, 2/3 live outside in surrounding areas.

Specific areas of levee vulnerability include:

- If the levee on the north side of Prospect Island fails it will pass water onto weaker, smaller levees, starting a chain reaction that could cause flooding of the entire District.
- On the Miner’s Slough project levee, the waterside berms are gone.
- On Ryer Island, at the bridge crossing, the USACE raised the RD 999 levee to increase the freeboard, but they were not able to complete coordination with Caltrans so there is a 3 foot drop in the RD 999 levee which is 150 feet wide.
- There is erosion along approximately one mile of Unit 3 of Sutter Slough. Additionally, the top of the levee is covered in elderberry bushes making the mitigation cost for addressing the erosion far too expensive.
- The levee at Elk Slough failed the USACE inspection due to inadequate cross section geometry.

- There are erosion and underseepage problems in the levee at center of Clarksburg (end of Netherlands Ave/Road 154). The USACE had a project designed to address this. However, it has not been constructed.
- There is subsidence approximately 10-15 feet from the toe of the levee at Miner's Slough Corner.
- There are multiple encroachment problems that include approximately 130 separate pipes through the levees.

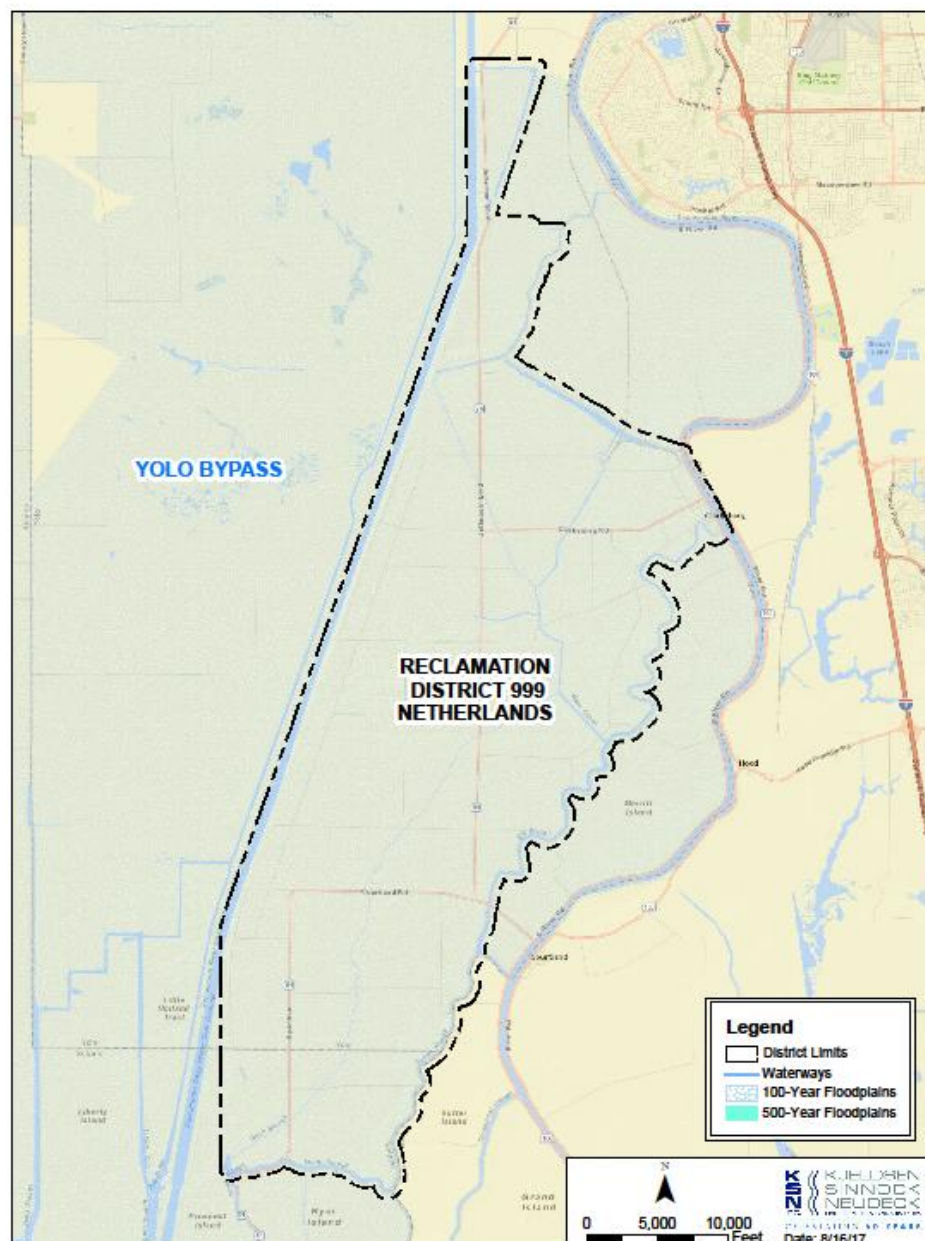


Figure 15: Reclamation District 999

Source: KSN Engineers

Reclamation District 900 is an independent special district that maintains the majority of the levees that surround West Sacramento. The District overlies approximately two-thirds of the City and has an estimated population of 40,000 people that would be vulnerable to a levee failure. This area includes several city fire stations and schools as well as the city police station and the Port of West Sacramento. RD 900 is bound by the Southern Pacific Railroad embankment on the north, the Sacramento River on the east, Shangri-La Slough on the south, and the Deep Water Ship Channel (DWSC) on the west (see Figure 16). The DWSC also bisects RD 900 into two district areas.

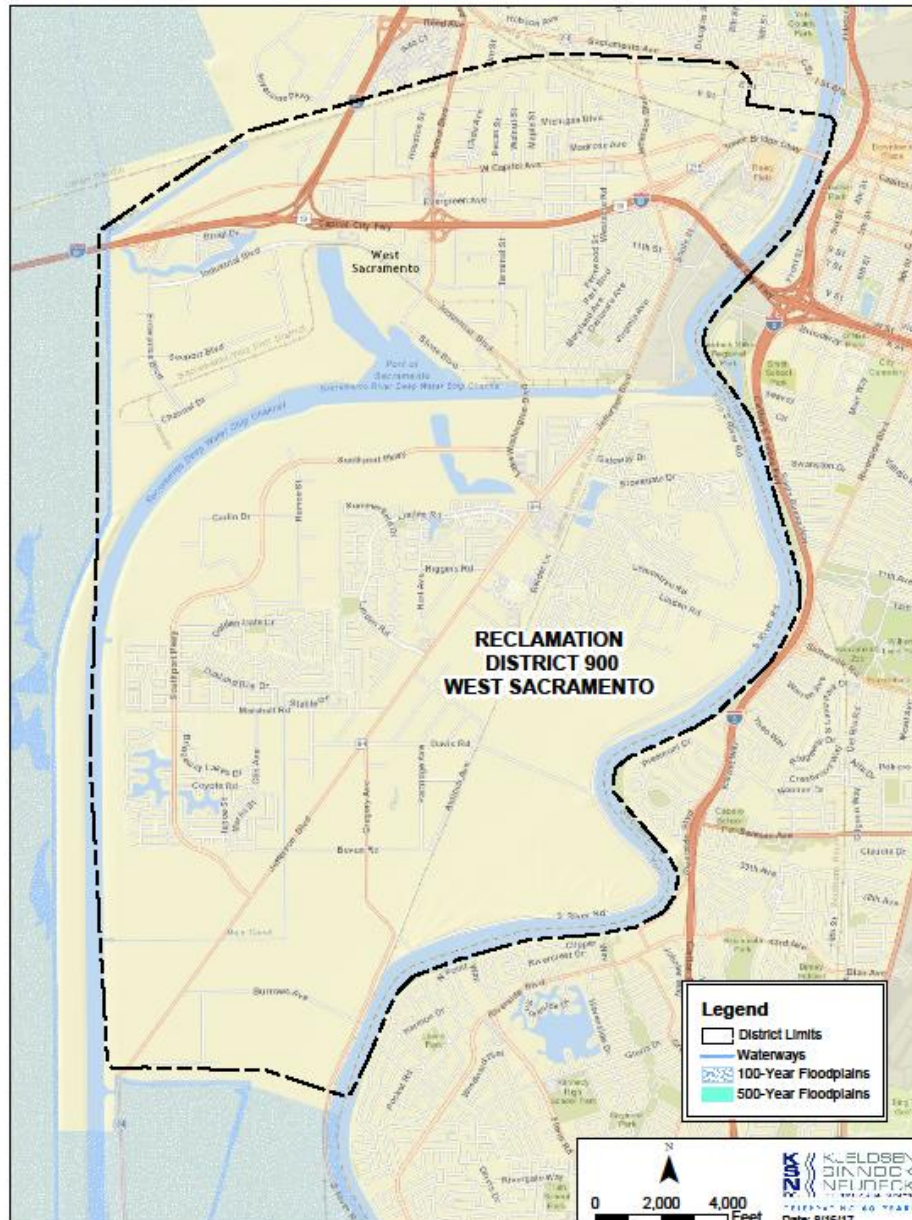


Figure 16: Reclamation District 900
Source: KSN Engineers

Reclamation District 2035 – Conaway Tract comprises 12.1 miles of levee. The District is responsible for the levee maintenance and drainage services for approximately 20,500 acres of privately owned agricultural land. The Tract is located adjacent to the Yolo Bypass on the east and receives some inflow from the Cache Creek Settling Basin (CCSB) on the north (see Figure 17).

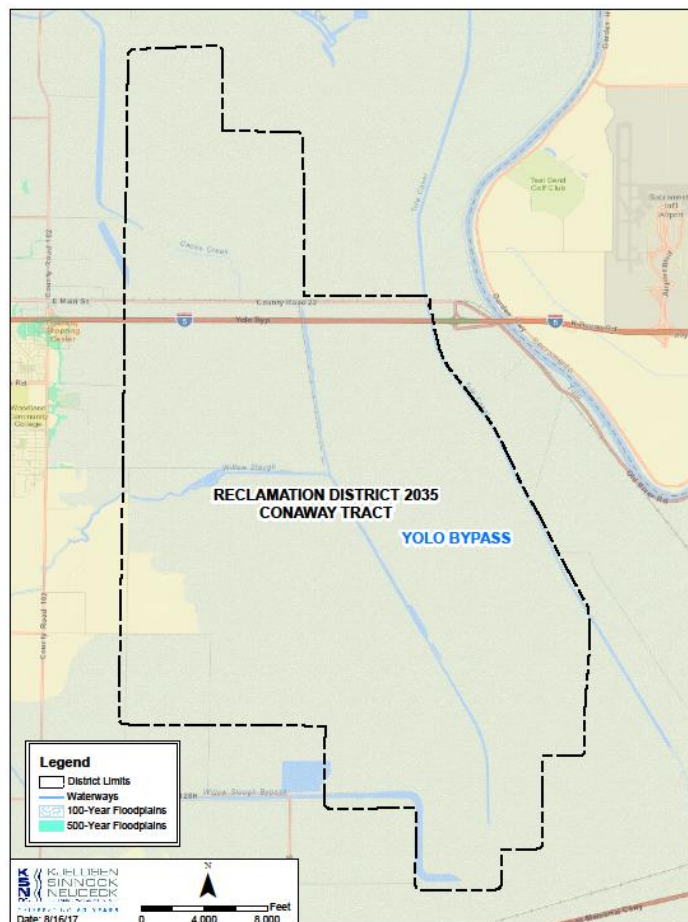


Figure 17: RD 2035
Source: KSN Engineers

The District works in partnership with the City of Woodland to address flood issues that could impact the southwestern periphery of the City of Woodland, where industrial centers and shopping areas are most susceptible. A breach on the northern segments of the Tract (north of County Road 25) may encroach on the south east end of the City of Woodland, but is not expected to have severe impacts west of County Road 102. Floodwaters will generally flow southeast and may begin to expand and backup against the southern Bypass levees near the junction with County Road 29. While a breach of the West Bypass Levee would not directly threaten the City of Davis, the City of Davis Wastewater Treatment Plant is particularly vulnerable. The plant is located less than a mile from the levee and is currently not protected by a berm, as the City of Woodland Wastewater Treatment Plant is. Inundation of the City of Davis Wastewater Treatment Plant would result in the loss of wastewater services for the City of Davis for several weeks.

Reclamation District No. 2068 (District) – Yolano was formed in April 1924 to provide retail water supply, flood protection, and drainage to agricultural producers within the district boundary. This now includes the district maintenance responsibilities of their portion of the SRFCP levees in, and adjacent to, the Yolo Bypass.

The District is located in the northwest Delta near the City of Dixon. The District is located in both Solano County (over 11,000 acres), and Yolo County (just under 2,000 acres); 1,280 acres of which lies within the Yolo Bypass (see Figure 18). The levee is 8.8 miles long, of which 5.5 miles is along the west bank of the Yolo Bypass, and 3.23 miles is on the back levee. The entire levee system is part of the Sacramento River Flood Control Project, Unit 109, west levee of Yolo Bypass and the east levee of Cache Slough, lying north of the same project levees under the jurisdiction of Reclamation District 2098.

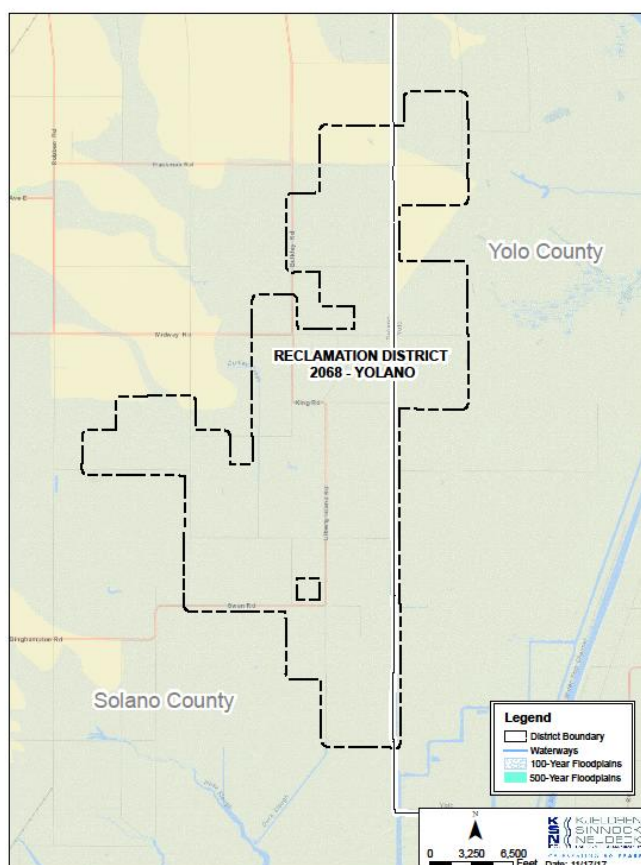


Figure 18: Reclamation District 2068
Source: KSN Engineers

Land use is primarily agricultural, which presents the most significant vulnerability to a levee threat. Pastureland use dominates for livestock; alfalfa, grain, and miscellaneous row crops are also grown. The District plans no major land use changes, although there are statewide planning efforts that, if carried out, could affect land use change, and aspects of the District operation and maintenance of the levee and drainage system.

Reclamation Districts (RD); RD1600, RD827, RD785, and RD537 maintain The Elkhorn Basin, which encompasses approximately 16,549 acres protected by an interdependent levee system (see Figures 19-22). The Elkhorn Basin RDs are facing many of the same infrastructure, funding, O&M, institutional, emergency response, environmental, agricultural sustainability, and climate change problems as the rest of the region. Levees were constructed in the early 1900s and they do not meet current design standards. Additionally, all levees along the Sacramento River within this basin have elderberry bushes which restrict inspection and maintenance. The protected area is primarily agricultural farmland with a limited number of residences, other structures, and transportation systems. The primary vulnerabilities would be the loss of cropland. County Road 22, which serves as major transportation corridor between West Sacramento and Woodland, traverses the lower half of this area along the Sacramento River Levee and is particularly susceptible to a failure of that levee. There are several spots along the Sacramento River Levee in these districts that have experienced damage during previous storms and are susceptible to future events.

Transportation systems in the Elkhorn Basin include Interstate 5 which crosses the basin from east to west. The Elkhorn Basin is bounded by three distinct waterways: the Yolo Bypass on the west, the Sacramento River on the east, and the Sacramento Bypass on the South.

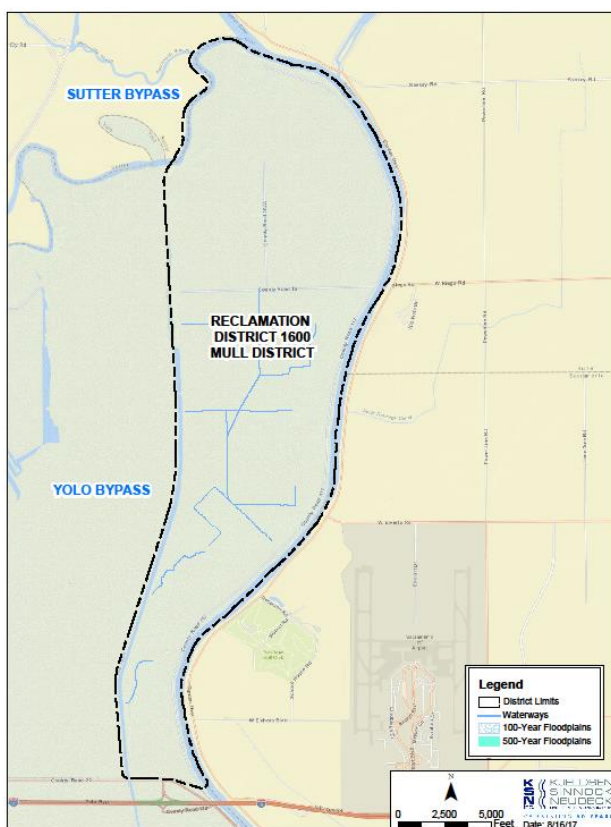


Figure 19: Reclamation District 1600

Source: KSN Engineers

Specific areas of levee vulnerability for RD 1600 include:

- Along the Sacramento River west levee, 8 miles north of Road 117 and Old River Road, there are three large, deep scour holes approximately 6ft off the waterside toe.
- Along the landward side of the Sacramento River levee, 1000 ft north of the Fremont Weir and running for 1.6 miles, the levee side slope is approximately 1:1. This area is part of the Mid Valley project and RD 1600 has been paying DWR \$5,000 per year (\$150,000 over 30 years) to repair this levee and bring the side slope to 3:1, but there have been no repairs yet.
- On the Yolo Bypass levee starting 2 miles south of the Fremont Weir and running for 2.3 miles, the levee crown road needs an additional 5-6 inches of base and gravel added to ensure the ability to safely drive the road during patrols in wet weather and high water events as this road surface gets extremely muddy and deeply rutted. Also, on the landward side of this levee, there have been slope stability issues during each of the previous high water events. And, this levee's side slope is extremely steep and needs soil to be added to give a 3:1 slope. A half-mile stretch of this levee is eight tenths of a foot under the 1957 profile.
- On the Yolo Bypass levee starting 3-4 miles south of the Fremont Weir, there is erosion on the bypass side from wave wash. The erosion extends down the entire side slope into the Tule Canal. The canal is approximately 80 ft wide and there is no road at the levee toe. With no road it is difficult to access these erosion sites to repair them and maintain them.

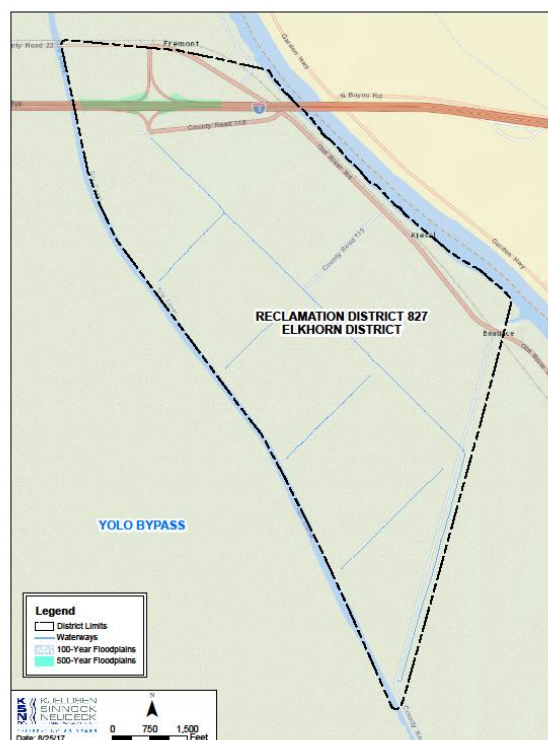


Figure 20: Reclamation District 827
Source: KSN Engineers

Approximately 2 miles of the Yolo Bypass levee in RD 785 were never completed when constructed. The levee slope on the bypass side was never rip-rapped as originally designed and the levee needs rock placed onto the crown to allow for winter patrol access and emergency access during flood warning times.

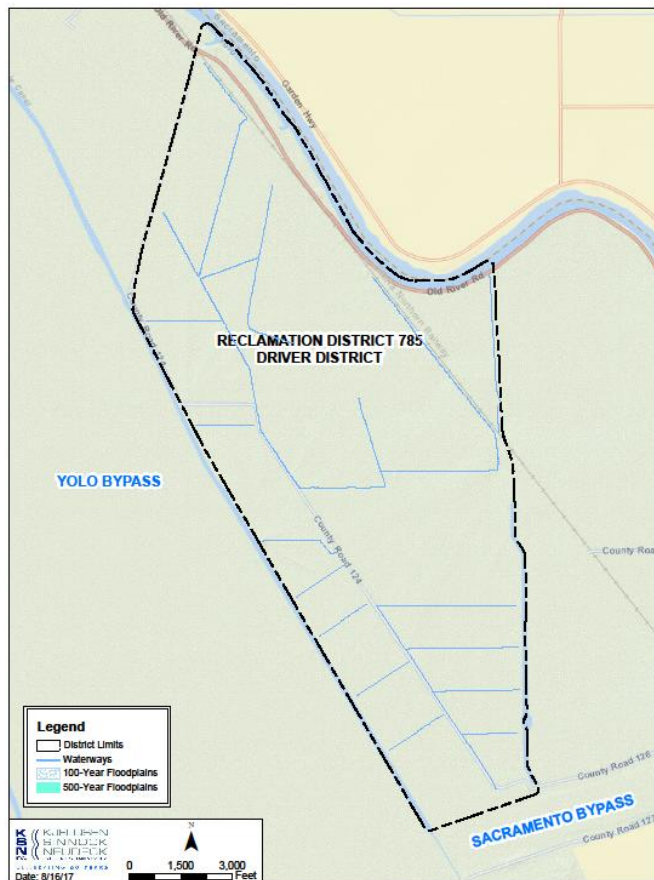


Figure 21: Reclamation District 785
Source: KSN Engineers

RD537 is composed of two disparate sections separated by the Sacramento Bypass: the northern portion of RD537 is rural, while the southern portion is developed industrialized land. Areas of levee vulnerability include:

- The crown of the levee on the north side of the Sacramento weir is collapsing due to both underseepage and stability problems.
- The levee along Old River Road around Monument Bend has no berm on the river side.
- At Monument Bend, RD 537 constructed an oxbow levee (an interior levee) in 1965 to protect against failure of the Sacramento River levee. During a high water event RD 537 maintains this oxbow levee which puts the responsibility on DWR and Yolo County to maintain the river levee and the Old River Road. This will create problems for emergency evacuation.



Figure 22: Reclamation District 537
Source: KSN Engineers

Reclamation District (RD) 108 is located along the western edge of the Sacramento River and delivers water to nearly 48,000 acres of farmland within southern Colusa County and northern Yolo County. RD 108 receives water from the Sacramento River under riparian water rights, licenses for appropriation of surface water, and a Settlement Contract with the US Bureau of Reclamation. The first irrigated crops were grains, mostly barley but today include rice, wheat, corn, safflower, tomatoes, beans, vineseeds, cotton, walnuts and fruit.

The district was formed in 1870 under the Reclamation District Law of 1868 for the purpose of forming a district to build levees and “reclaim” land subject to periodic overflow from neighboring rivers and water bodies. At this time the Government was promoting reclamation to develop swamp lands for the improvement and cultivation of the thousands of acres in California. On October 4, 1870

the landowners submitted a petition to the Colusa and Yolo County Boards of Supervisors authorizing the formation of a new Reclamation District and assigned it the number 108.

RD 108 is surrounded on three sides by levees, that include the west-side levees from Colusa to Knights Landing along the Sacramento River, a Back Levee along the District's western boundary to prevent flooding from the Colusa Basin, and then along the slough in the South that at one time took drainage water from the Colusa Basin back to the Sacramento River (see Figure 23). The district works in coordination with the Sacramento River West Side Levee District and the Knights Landing Ridge Drainage District to provide maintenance to over 90 miles of levees. All of the levees were originally built by the local landowners using whatever materials available and whatever criteria they chose, but have since become part of the federally sponsored Sacramento River Flood Control Project. The levees protect the rural communities in Yolo and Colusa Counties. These levees are integral to the system-wide performance of the Sacramento River Flood Control Project and provide indirect protection to the cities of Sacramento and West Sacramento. Since formation of the levee districts, Sacramento River West Side Levee District, Knights Landing Ridge Drainage District have shared management, personnel and equipment with RD 108. The flood control districts reimburse RD 108 for management and work performed.

Sacramento River West Side Levee District (SRWSLD) - The levees south of Colusa were initially maintained by Reclamation District 108, but the costs for levee construction and maintenance were high and borne by few landowners whereas the benefits of flood protection extended beyond RD 108 boundaries. In 1915 the legislature created the SRWSLD to more accurately reflect the lands benefited. All of the levees were originally built by landowners and have become part of the federally authorized Sacramento River Flood Control Project. The levee system protects the City of Colusa, town of Grimes while also protecting approximately 194,000 acres of farmland.

Knights Landing Ridge Drainage District (KLRDD) - In 1913 the legislature created the KLRDD. The KLRDD is protected by an interdependent levee system, is approximately 4000 acres, and is managed by RD 108 staff. This interdependent system is an integral part of the Sacramento River Flood Control Project and provides protection to the Town of Knights Landing, which is the community most vulnerable to a levee threat along the Sacramento River in this area. The Knights Landing Levee System is bounded by three major waterways: the Sacramento River on the east, the Yolo Bypass on the southeast, and the Colusa Drain on the west (see Figure 23). The basin protected by this levee system is primarily agricultural with one rural community, the Town of Knights Landing. The protected area is within Yolo County.

The KLRDD also contains a portion of County Service Area (CSA) #6, a roughly six mile stretch of levee along the Sacramento River that extends from Knights Landing to the Fremont Weir and is maintained by Yolo County. There are numerous erosion sites located along the levee.

Reclamation District (RD) 787 is located along the western edge of the Sacramento River and services 15.8 square miles of land with 4.4 miles of levee. The District provides levee maintenance, drainage, and irrigation.

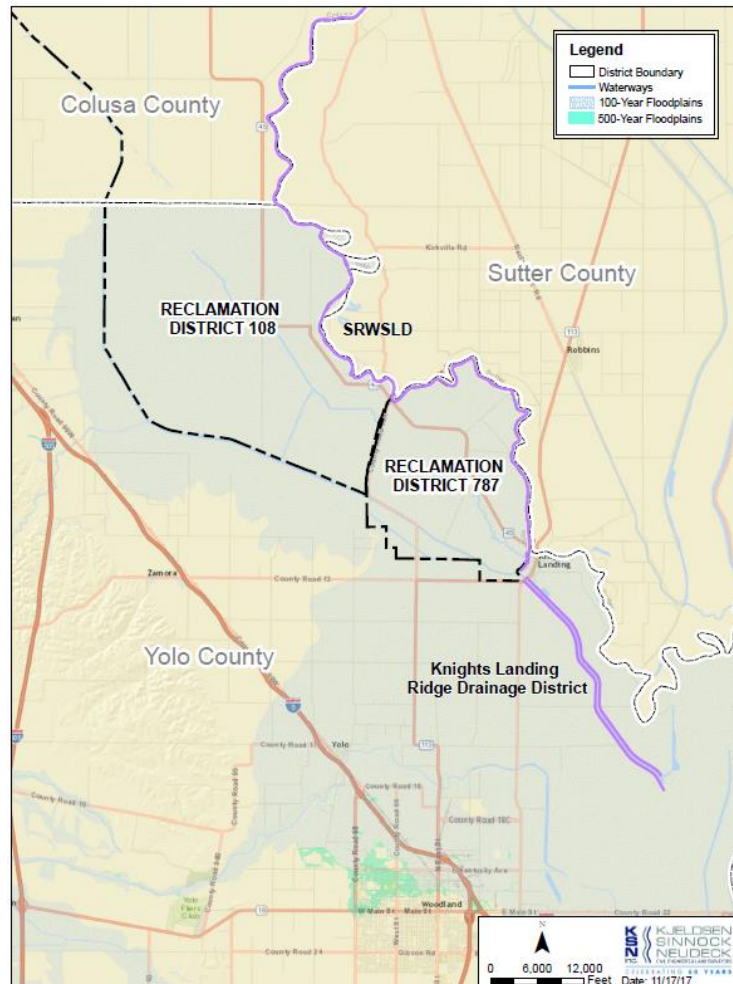


Figure 23: RD 108, Sacramento River West Side Levee District, Knight Landing Ridge Drainage District, and RD787

Source: KSN Engineers

Reclamation District (RD) 765 provides water drainage and flood control services within its gross service area of 1,400 acres (see Figure 24). The District and its sphere of influence are located within Yolo County on the west bank of the Sacramento River approximately 4 miles south of the City of West Sacramento. The District's topography is relatively flat and is confined by the following surface water features and engineered channels: the Sacramento River and Babel Slough. The Sacramento River has a design capacity of 100,000 cfs along RD 765 levees on that waterway.

The District is in the "flood plain" but no portion of the District is within a floodway. The District maintains 1.7 miles of levees. District levees run adjacent to the Sacramento River. The entire District is within the legal Sacramento-San Joaquin Delta District and within the scope of the Sacramento River Flood Control Project, as approved by the US Army Corps of Engineers (USACE), Department of Water Resources (DWR) and the Central Valley Flood Protection Board (CVFPB).

The District pump system discharges internal drainage into the Deep Water Ship Channel and moves irrigation tailwater from waterways into the District irrigation system. The District is mostly agricultural. Most of the land in the District is primarily for row crop production. A marina with several businesses is also located on the Sacramento River side of the District.

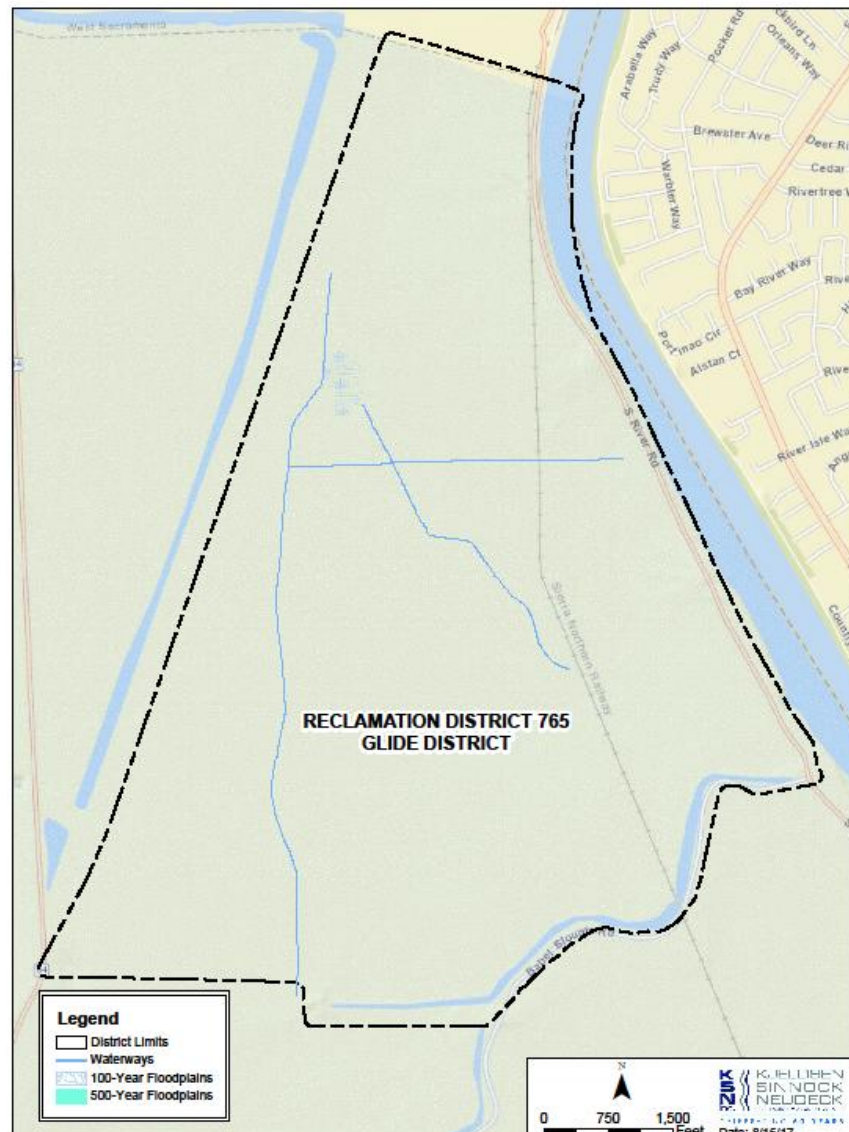


Figure 24: Reclamation District 765
Source: KSN Engineers

The South River Pump Station is located at the northern end of the District and is vulnerable to a levee failure. This station services areas in the City of Sacramento, the City of Citrus Heights, the City of West Sacramento, and unincorporated areas in the County of Sacramento. A project to construct a new 200-year flood protection levee around the pump station is estimated to begin in summer 2016.

Sacramento Maintenance Yard (SMY) is part of the California Department of Water Resources' Flood Maintenance Office and is charged with the maintenance and flood fight of State Maintenance Area and State-Maintained levee systems within its area of operations. While the SMY is physically located in Sacramento, it maintains discrete levee systems in Sutter, Sacramento, and Yolo Counties. Within Yolo County, SMY maintains and operates levees along Cache Creek, Putah Creek, Willow Slough Bypass, and the Yolo Bypass. A summary of the different creek and bypasses and their associated flood protection systems follows.

Huff's Corner - The Huff's Corner Levee (along the south side of Cache Creek) is 0.29 miles long, but the county is not resourced for O&M. Yolo County has no funding for O&M of the Huff's Corner Levee. The State owns and maintains the levee on either side of this 0.29 mile segment, but provides no resources to the County for O&M of Huff's Corner. There has been some discussion between Yolo County and DWR about the State possibly taking over O&M. Rate increase associated with the NFIP will most likely affect residents of Knights Landing within the next year. These increases can be an economic hardship on the rural areas and small communities in Yolo County, many of which are economically disadvantaged.

LOCATION AND PREVIOUS OCCURRENCES

California has over 13,000 miles of levees that protect residential and agricultural lands. The levee failures resulting from Hurricane Katrina prompted the State and the Department of Water Resources (DWR) to initiate development of a state-of-the-art California Levee Database (CLD) for the purpose of better understanding and managing levees in California. The CLD is an efficient tool for assessing levee reliability risk factors using a GIS-enabled geospatial database.

Starting in 2005, partnering with the Federal Emergency Management Agency (FEMA) under the auspices of FEMA's Map Modernization Management Support program, DWR has started assembling critically needed levee information on ownership, location, and risk assessment factors for all the levees in California. Recognizing that other agencies are engaged in similar efforts, DWR is actively participating on national committees organized by the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers (USACE) to ensure compatibility and coordination with other national efforts. Currently, the California Levee Database has location information for more than 10,000 miles of levees and flood control structures throughout California. In addition to the database above, the Yolo County Flood Insurance Study dated 5/16/2012 lists the levees in Yolo County and are detailed below.

Community	Flood Source	Levee Inventory Identification #	USACE Levee
Yolo County (Unincorporated Areas)	Buckeye Creek	Not specified	No
City of Woodland Yolo County (Unincorporated Areas)	Cache Creek	52, 53, 55, and 81	Yes
City of Woodland	Colusa Basin	94, 95, and 163	Yes

Community	Flood Source	Levee Inventory Identification #	USACE Levee
Yolo County (Unincorporated Areas)	Drainage Canal		
Yolo County (Unincorporated Areas)	Knights Landing Ridge Cut	83, 84, 120, 121, and 162	Yes
City of Woodland	Old River	85, 118, and 119	No
Yolo County (Unincorporated Areas)			
City of West Sacramento	Sacramento River	11, 17, 86, 93, 122, 133 through 142, 147, 151, 152, 157, and 168 through 171	Yes
Yolo County (Unincorporated Areas)			
City of West Sacramento	Sacramento River	148 and 149	Yes
Yolo County (Unincorporated Areas)	Toe Drain		
City of Davis	South Fork Putah Creek	29, 30, 105, and 106	Yes
Yolo County (Unincorporated Areas)			
Yolo County (Unincorporated Areas)	Unnamed Canal between Colusa Basin Drainage Canal and Sacramento River near El Dorado Bend	123 and 124	No
Yolo County (Unincorporated Areas)	Willow Slough	36	No
City of Davis	Willow Slough Bypass	34 and 35	Yes
Yolo County (Unincorporated Areas)			
City of Davis	Yolo Bypass	28, 82, 116, 117, 128, and 132	Yes
Yolo County (Unincorporated Areas)			
Yolo County (Unincorporated Areas)	Yolo Bypass	5	No

Table 5 – Levees in Yolo County
Source: Yolo County Flood Insurance Study 2012

Yolo County has approximately 215 miles of project levees, managed by various agencies, including the County, 13 reclamation districts, one levee district, one drainage district, and DWR. These levees

provide flood protection to West Sacramento, Woodland, Knights Landing, Clarksburg, Davis and important agricultural lands. In addition, the Yolo Bypass, the Sacramento Weir, and the Fremont Weir help protect Sacramento and other urban communities in the region from flooding by the Sacramento River. Some levees, particularly the project levees that protect parts of the City of Woodland and unincorporated Yolo County, the vicinity of Cache Creek and the town of Yolo only provide a 10-year level of flood protection rather than the 100-year federal standard. Without work to improve these levees, additional development in Yolo County's floodplain could put more residents at risk of flooding hazards.

The local levees have been assumed to provide adequate protection since their acceptance into the Sacramento River Flood Control Project in 1917, with the levees being modified over the decades. Recently, where insufficient geotechnical information exists to evaluate the integrity of the levees, DWR has taken the position, in conjunction with FEMA that levees are not certified. DWR has completed geotechnical evaluations of the urban Sacramento River Flood Control Project levees within the county, and has proposed to do additional evaluations of non-urban levees in the coming years.

Figure 25 shows the extent of those areas that are protected by decertified levees and are currently subject to flooding. This map uses the best available information to identify those areas where flooding would be more than three feet deep if a project levee were to fail, assuming maximum capacity flows. Not surprisingly, levee flood protection zones are concentrated in eastern Yolo County, in areas adjoining levees for lower Cache Creek, Putah Creek, the Colusa Basin Drain, the Yolo Bypass, and the Sacramento River. Affected communities include Clarksburg, Davis, Knights Landing, West Sacramento, Woodland, and Yolo.

Also as part of FEMA's Map Modernization program, FEMA is mapping levees within communities, with a primary focus on maps determined to provide a 100-year level of flood protection.

In August of 2005, FEMA Headquarters' issued Memo 34 Interim Guidance for Studies Including Levees. This memo recognizes the risk and vulnerability of communities with levees. The memo mandates the inclusion of levee evaluations for those communities that are undergoing map changes such as the conversion to DFIRMs. No maps can become effective without an evaluation of all levees within a community against the criteria set forth in 44 CFR 65.10 Mapping of Areas Protected by Levee Systems. Generally, these levee certification requirements include evaluations of freeboard, geotechnical stability and seepage, bank erosion potential due to currents and waves, closure structures, operations and maintenance, and wind wet and wave run-up. In short, these guidelines require certification of levees before crediting any levee with providing protection from the 1 percent annual event (e.g., the 100-year flood).

In Yolo County, similar to other locations in California, levees and flood control facilities have been built and are maintained variously by public and private entities, including water, irrigation and flood control districts, other state and local agencies, and private interests. Some of these facilities were constructed with flood control as secondary or incidental to their primary purpose, so are not considered as providing protection from the 100-year or greater flood. Levees in the County are discussed in the Levee Section of this plan.

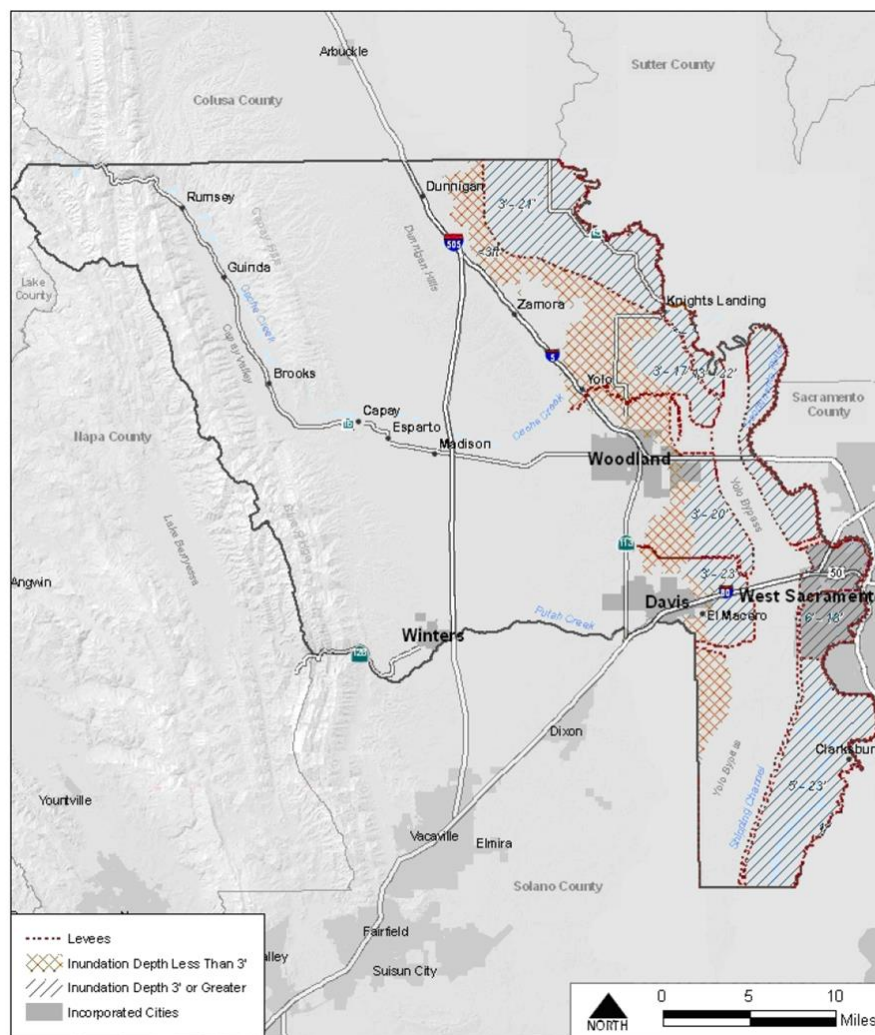


Figure 25: Levee Protection Zones in Yolo County
Source: Yolo County General Plan

In the winter of 2017, a series of severe winter storms and the subsequent releases of water from dams upstream of Yolo County caused a number of damages throughout levees in the Yolo County Operational Area. Though no levees failed, there was significant sloughing and erosion to levees along the Sacramento River (including RD 1600, 827, 108, and CSA 6), Yolo Bypass (RD 2035), the Deepwater Ship Channel (RD 900), and Elk Slough (RD 150). Two disaster declarations were issued for Yolo County due to these storms.

IMPACTS

Levee failure flooding would vary depending on which structure fails and the nature and extent of the failure and associated flooding. This flooding presents a threat to life and property, including buildings, their contents, and their use. Large flood events can affect lifeline utilities (e.g., water, sewerage, and power), transportation, jobs, tourism, the environment, agricultural industry, and the local and regional economies.

The overall impact to the community from levee breach or failure includes:

- Injury and loss of life;
- Commercial and residential structural damage;
- Disruption of and damage to public infrastructure;
- Health hazards associated with mold and mildew;
- Damage to roads/bridges resulting in loss of mobility;
- Significant economic impact (jobs, sales, tax revenue) to the community;
- Negative impact on commercial and residential property values;
- Long dewatering periods;
- Significant disruption to students and teachers as temporary facilities and relocations would likely be needed.

EXTENT

Levee failure is rated as **Catastrophic** with more than 50 percent of the operational area potentially being affected by a failure of any major levee. Parts of the County would be completely inundated.

PROBABILITY

Yolo County remains at risk to levee breaches/failures from numerous levees under a variety of ownership and control and of varying ages and conditions. Given the number and types of levees in and around the County, the potential exists for future levee issues in Yolo County. Due to deteriorating conditions on several levees in Yolo County, the probability of a catastrophic levee failure that would impact Yolo County and its jurisdictions is **Likely**: Between 10 percent and 100 percent chance of occurrence in next year or has a recurrence interval of 10 years or less.

VULNERABILITY

Numerous areas of Yolo County are susceptible to levee failure depending on where a breach were to occur. These vulnerabilities are mentioned in the profiles above for each Reclamation District and Local Maintaining Agency.

3.3.4 EARTHQUAKE

Earthquakes are sudden rolling or shaking events caused by movement under the earth's surface. Earthquakes happen along cracks in the earth's surface, called fault lines, and can be felt over large areas, although they usually last less than one minute.

The amount of energy released during an earthquake is usually expressed as a magnitude, and is currently measured by seismologists on the Moment Magnitude (Mw Scale). The Mw Scale was developed to succeed the previously used Richter Scale and is measured on a scale of zero to ten with increasing values reflecting increasing intensity.

The other commonly used measure of earthquake severity is intensity, which is an expression of the amount of shaking at any given location on the ground service. Intensity is most commonly measured on the Modified Mercalli Intensity (MMI) Scale (see Figure 26).

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Figure 26: Modified Mercalli Intensity Scale

Figure 27 gives intensities (measured on the MMI scale) that are typically observed at locations near the epicenter or earthquakes of different magnitudes.

Magnitude	Typical Maximum Modified Mercalli Intensity
1.0 - 3.0	I
3.0 - 3.9	II - III
4.0 - 4.9	IV - V
5.0 - 5.9	VI - VII
6.0 - 6.9	VII - IX
7.0 and higher	VIII or higher

Figure 27: Mercalli Scale vs. Magnitude

The extent of ground shaking also depends in large part on how soft the underlying soil is. Soft soils amplify ground shaking (see Figure 28). This was observed during the 1989 Loma Prieta Earthquake when the most significant damages experienced in San Francisco were in the Marina District, which was built on fill.

Soil type A	Vs > 1500 m/sec	Includes unweathered intrusive igneous rock. Occurs infrequently in the bay area. We consider it with type B (both A and B are represented by the color blue on the map). Soil types A and B do not contribute greatly to shaking amplification.
Soil type B	1500 m/sec > Vs > 750 m/sec	Includes volcanics, most Mesozoic bedrock, and some Franciscan bedrock. (Mesozoic rocks are between 245 and 64 million years old. The Franciscan Complex is a Mesozoic unit that is common in the Bay Area.)
Soil Type C	750 m/sec > Vs > 350 m/sec	Includes some Quaternary (less than 1.8 million years old) sands, sandstones and mudstones, some Upper Tertiary (1.8 to 24 million years old) sandstones, mudstones and limestone, some Lower Tertiary (24 to 64 million years old) mudstones and sandstones, and Franciscan melange and serpentinite.
Soil Type D	350 m/sec > Vs > 200 m/sec	Includes some Quaternary muds, sands, gravels, silts and mud. Significant amplification of shaking by these soils is generally expected.
Soil Type E	200 m/sec > Vs	Includes water-saturated mud and artificial fill. The strongest amplification of shaking due is expected for this soil type.

Figure 28: Soil Types

LOCATION AND PREVIOUS OCCURRENCES

There are several known faults in Yolo County, the primary ones being the Hunting Creek Fault system, which includes the Wilson Fault, and the Dunnigan Hills Fault, as shown in Figure 29.

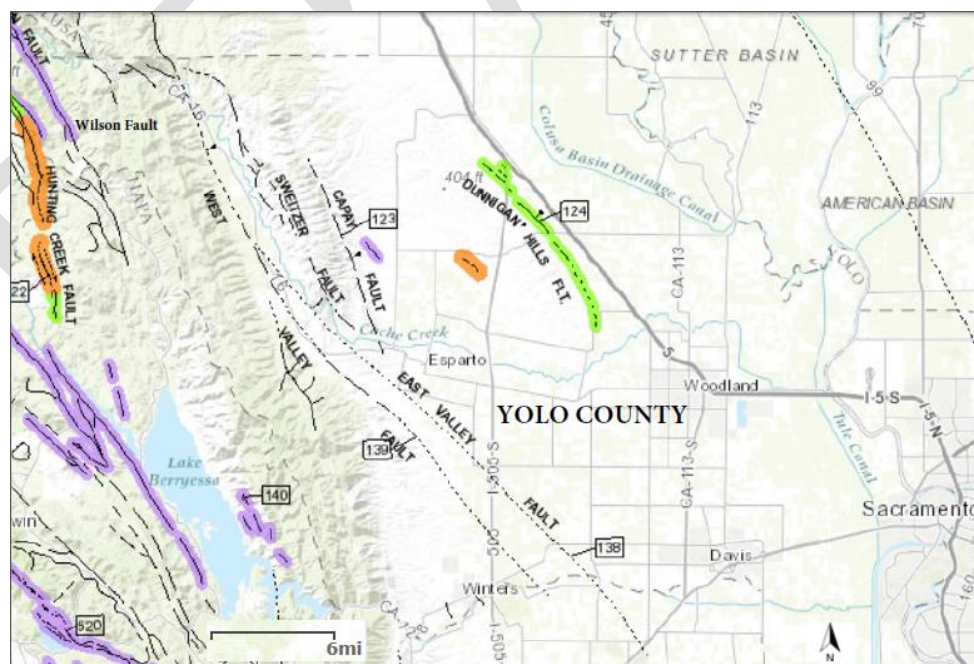


Figure 29: Fault Lines in Northern Yolo County

Source: USGS

The Hunting Creek Fault, part of the Hunting Creek-Berryessa fault system, is located in the far northwestern portion of the County. This is the only known active fault in the County subject to surface rupture. The Hunting Creek-Berryessa is an active (Holocene) dextral strike-slip fault system associated with the larger San Andreas fault system. The Hunting Creek-Berryessa fault system extends from the vicinity of Wilson Valley south-southeast to the Cedar Roughs area west of Lake Berryessa. In this compilation, the fault zone is divided from north to south into the Wilson, Hunting Creek, and Lake Berryessa sections. The Wilson section most likely transfers dextral slip to the Bartlett Springs fault system. The Hunting Creek-Berryessa fault system is expressed as a zone of discontinuous fault traces as much as 3.5 km wide. The Hunting Creek-Berryessa fault system locally is delineated by geomorphic evidence of Holocene dextral strike-slip displacement, predominantly along the Hunting Creek fault, which comprises the Hunting Creek section. Late Pleistocene and probable Holocene displacement has occurred along traces of the Hunting Creek fault. The late Pleistocene dextral slip occurred at a rate of 0.09–0.4 mm/yr, based on apparent vertical separation of a late Pleistocene to Holocene colluvium. The geomorphic expression of the Hunting Creek fault indicated a dextral slip rate of at least 1 mm/yr. Only a small portion of the fault lies within Yolo County, and is in an area that is sparsely populated and not planned for any growth or development other than individual farm dwellings that might be built in the future. Development near a fault subject to surface rupture is regulated by the Alquist-Priolo Act. The Act requires a detailed fault-rupture hazard investigation and prohibits development directly over any traces of the active fault line.

The other potentially active fault is the Dunnigan Hills Fault, a segment of the Hunting Creek Fault, extending west of Interstate 5 between the town of Dunnigan and northwest of the town of Yolo. This fault has been active in the last 10,000 years, but has not been active in historic times.

In addition to the Hunting Creek and Dunnigan Hills faults, major faults in the Coast Ranges and in the Sierra Nevada foothills are capable of producing groundshaking that could affect Yolo County residents. See Figure 30 for a map of faults surrounding Yolo County. Most of the active fault lines lie outside of the Sacramento Valley where the most of Yolo County is located.

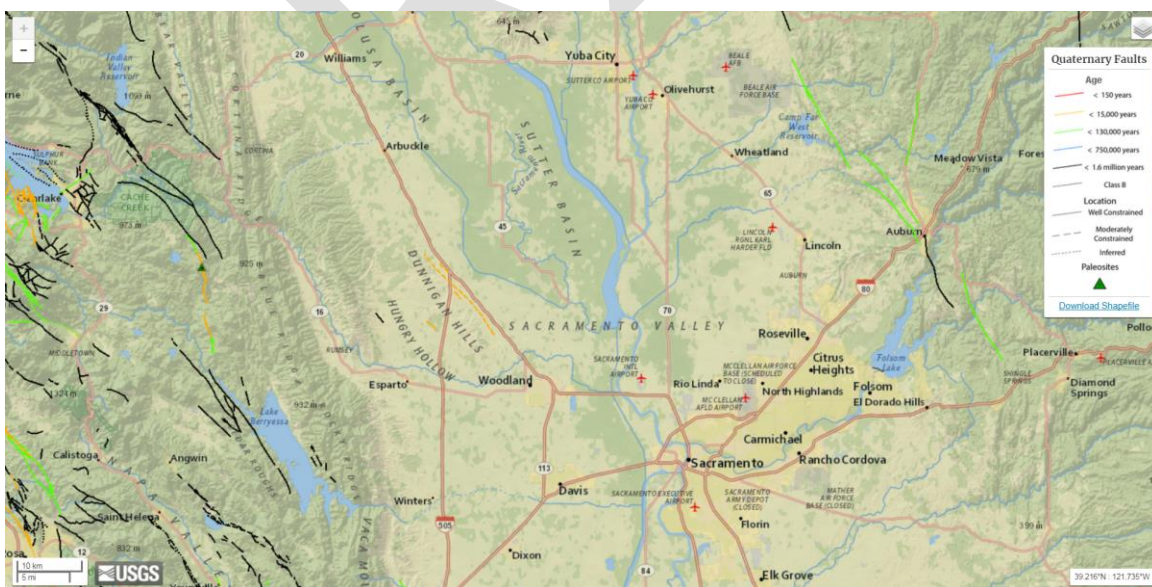


Figure 30: Fault Lines around Yolo County

Source: USGS

There are also several other inactive faults located in Yolo County, specifically in the Capay Valley, which itself is formed over an offset synclinal fault and is considered to be an area of seismic activity. Several inactive mapped faults, including the Sweitzer and Capay faults, pass through the Capay Valley.

The only earthquake to significantly affect Yolo County in recent history is the April 1892 Vacaville-Winters earthquake that measured 6.9 on the Richter Scale and caused severe damage to Winters and lesser damage to Davis, Woodland, and other parts of the County. It is believed to have originated from the Midland Fault (see Winters Community Profile), which is a segment of a complex zone of blind thrust faults referred to as the Coast Range-Sierran Block Boundary (CRSBB) that lie to the south of Yolo County in Solano County on the western side of the lower Sacramento Valley. Eleven moderate earthquakes have been documented along the CRSBB zone during the last 150 years, most recently the 1983 Coalinga Earthquake which registered 6.7 on the Richter Scale and VII (Severe) on the Mercalli Intensity Scale.

A 4.2 magnitude earthquake occurred near Madison in Yolo County in 1978, but did no damage. Several minor earthquake swarms from unmapped faults occurred west of Woodland in Yolo County in 2016, but these earthquakes only caused minimal shaking and did not cause any damage.

IMPACTS

Yolo County could experience ground shaking as a result of an earthquake, including from the major regional fault lines located outside of the County. As shown in Figure 32, the area is subject to a range of ground shaking levels. The most significant impacts would be felt from the CRSBB zone, which is currently recognized as a potential seismic source capable of generating moderate to large earthquakes that could affect Yolo County. An earthquake of this size has the potential to significantly affect the area around Winters as had the 1892 Vacaville-Winters Earthquake. Total damages from the 1892 Vacaville-Winters Earthquake were \$225,000-\$250,000 and one person was killed (see Figure 31). Damages today from a similar magnitude earthquake in the Winters area would be exponentially greater and could significantly impact the downtown area; See Appendix C for HAZUS modeling.



Figure 31: Downtown Winters after the 1892 Vacaville-Winters Earthquake

Source: Winters Historical Society

According to the Yolo County General Plan, the maximum expected earthquake for the Hunting Creek Fault area would be 6.9 on the Richter Scale. As the Hunting Creek fault is located in a remote corner of the County, it is expected that damages to property would be minimal. However, landslide triggered by an earthquake in the area could impact local stream flows and recreational areas.

The effects of ground shaking during a maximum intensity earthquake would likely involve structural damage to stucco, masonry walls and the chimneys of buildings, which could expose people to falling objects and possible building collapse. The degree of such hazards is controlled by the nature of the underlying soil and rock materials, the magnitude of and distance from the quake, the duration of ground motion and the structural characteristics of the building. Earthquakes can also trigger landslides, debris flows, and natural gas leaks if a pipeline is impacted.

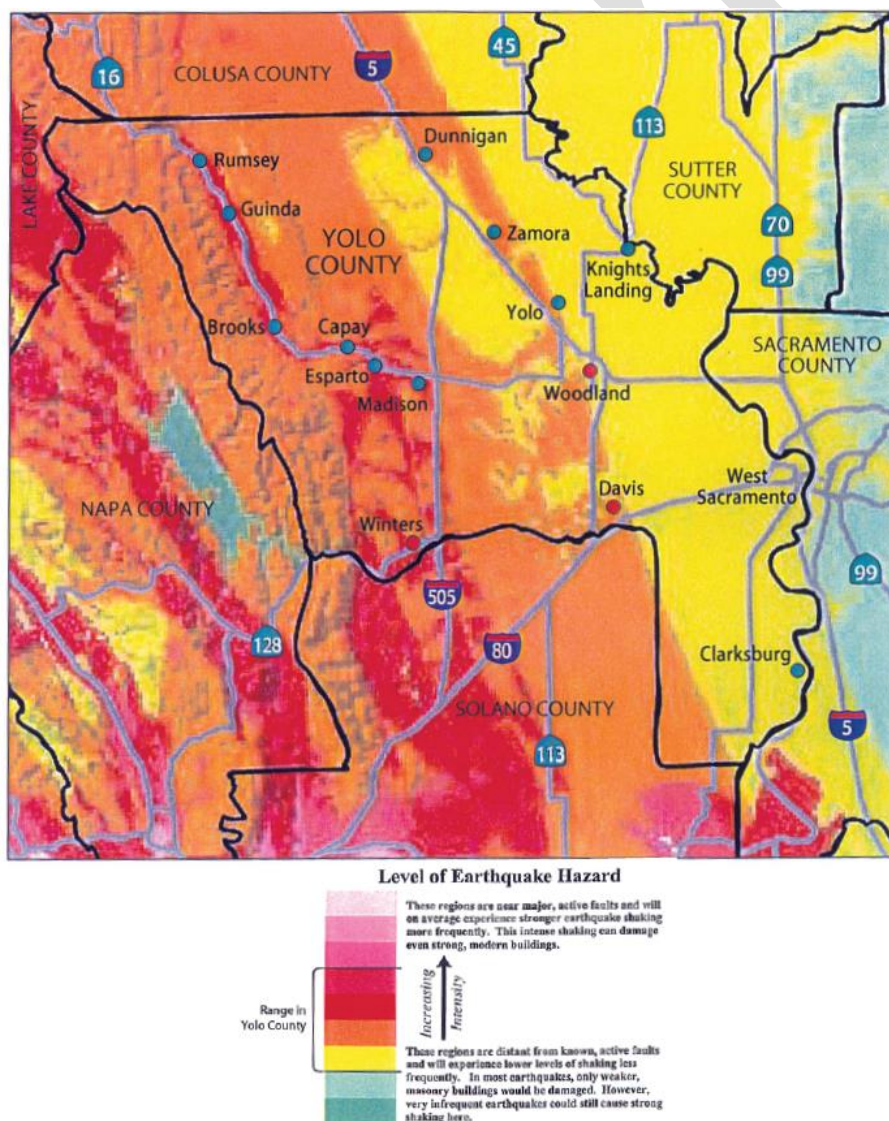


Figure 32: Regional Ground Shaking Hazard – Yolo County
Source: California Geological Survey

EXTENT

Earthquake is rated as **Critical** with between 35-50 percent of the operational area affected. An earthquake with a magnitude as high as 6.8 on the Mercalli Scale could potentially occur in the southwestern area of the County around Winters as had occurred in 1892.

PROBABILITY

Based on the earthquake shaking potential for Yolo County, the proximity to the Bay Area, and the history of ground shaking in the area, the probability of damaging seismic ground shaking in Yolo County and its jurisdictions is **Occasional**: Between 1 percent and 10 percent chance of occurrence in the next year or has a recurrence interval of 11 to 100 years.

VULNERABILITY

Earthquake vulnerability is based primarily upon population and the built environment. To mitigate this hazard, building codes in California have been steadily improved over the past 80 years as understanding of seismic shaking has improved. Current California building codes include provisions for considering the potential shaking from earthquakes, including stronger shaking near faults and amplification by soft soils. The building code has been the main mitigation tool for seismic shaking in most buildings, although hospitals, schools, and other critical facilities are subject to additional mitigation measures. Yolo County adheres to the Universal Building Code and the California Building Standards Code. Areas of Yolo County most susceptible to earthquake include those near active fault zones and where ground shaking is primarily with a wave velocity of 350 m/sec or lower. These areas include the western side of the County, including the City of Winters and the Capay Valley where there is numerous critical infrastructure that could experience damage. Older buildings in Winters are particularly susceptible to an earthquake.

Liquefaction may also lead to lateral spreading during an earthquake. Areas most prone to lateral spreading are those that consist of fill material that has been improperly engineered, that have steep, unstable banks, and that have high groundwater tables. The banks along the Deep Water Ship Channel and Turning Basin in West Sacramento may have such a condition. Numerous non-project levees throughout Yolo County are built on fill from the Sacramento River and are subject to liquefaction.

3.3.5 LANDSLIDE

A landslide is the breaking away and gravity-driven downward movement of hill slope materials, which can travel at speeds ranging from fractions of an inch per year to tens of miles per hour depending on the slope steepness and water content of the rock/soil mass. Landslides range from the size of an automobile to a mile or more in length and width and, due to their sheer weight and speed, can cause serious damage and loss of life. The rate of a landslide is affected by the type and extent of vegetation, slope angle, degree of water saturation, strength of the rocks, and the mass and thickness of the deposit. Some of the natural causes of this instability are earthquakes, weak materials, stream and coastal erosion, and heavy rainfall. In addition, certain human activities tend to make the earth materials less stable and increase the chance of ground failure. These activities include extensive irrigation, poor drainage or groundwater withdrawal, removal of stabilizing vegetation and over-steepening of slopes by undercutting them or overloading them with artificial

fill. These activities can cause slope failure, which normally produce landslides.

Landslide material types are often broadly categorized as either rock or soil, or a combination of the two for complex movements. Rock refers to hard or firm bedrock that was intact and in place prior to slope movement. Soil, either residual or transported material, means unconsolidated particles. The distinction between rock and soil is most often based on interpretation of geomorphic characteristics within landslide deposits, but can also be inferred from geologic characteristics of the parent material described on maps or in the field. Landslide movements are also based on the geomorphic expression of the landslide deposit and source area, and are categorized as falls, topples, spreads, slides, or flows. Falls are masses of soil or rock that dislodge from steep slopes and free fall. Topples move by the forward pivoting of a mass around an axis below the displaced mass. Lateral spreads move by horizontal extension and shear or tensile fractures. Slides displace masses of material along one or more discrete planes and can either be rotational or transitional. Flows mobilize as a deforming, viscous mass without a discrete failure plane.

LOCATION AND PREVIOUS OCCURRENCES

Landslides are most pervasive in mountainous terrain, where they occur more often in Yolo County. The Capay Valley area is particularly susceptible, as it is composed of poorly consolidated marine sediments on either side of a rapidly moving watercourse (Cache Creek) with significant uncontrolled flood volumes. The main area of concern in this region includes the State Highway 16 corridor along Cache Creek through the Cache Creek Canyon between Rumsey and the Colusa County line (see Figure 33 – grey areas represent historic landslide locations).

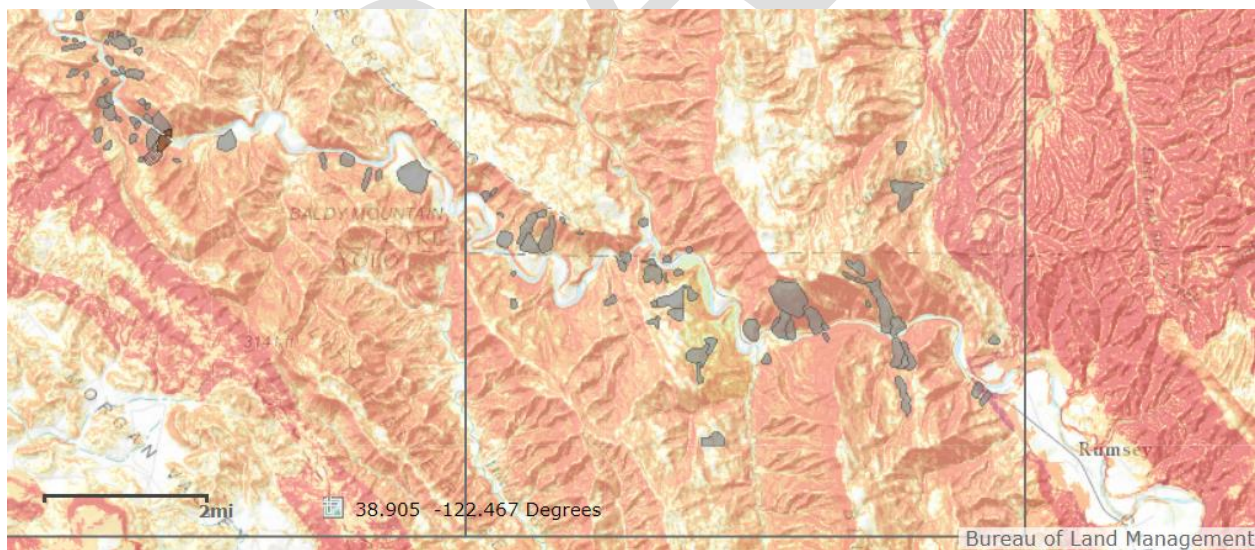


Figure 33: Historic Landslide Locations and Landslide Susceptibility in Northern Yolo County

Source: California Department of Conservation

On May 1, 1906, a landslide in this area north of Rumsey that was caused by the 1906 San Francisco earthquake formed a dam across Cache Creek and a subsequent four mile long lake behind it. When

the dam eventually broke, the excess water severely flooded the town and damaged several buildings including the railroad depot that existed at the time (see Figure 34).

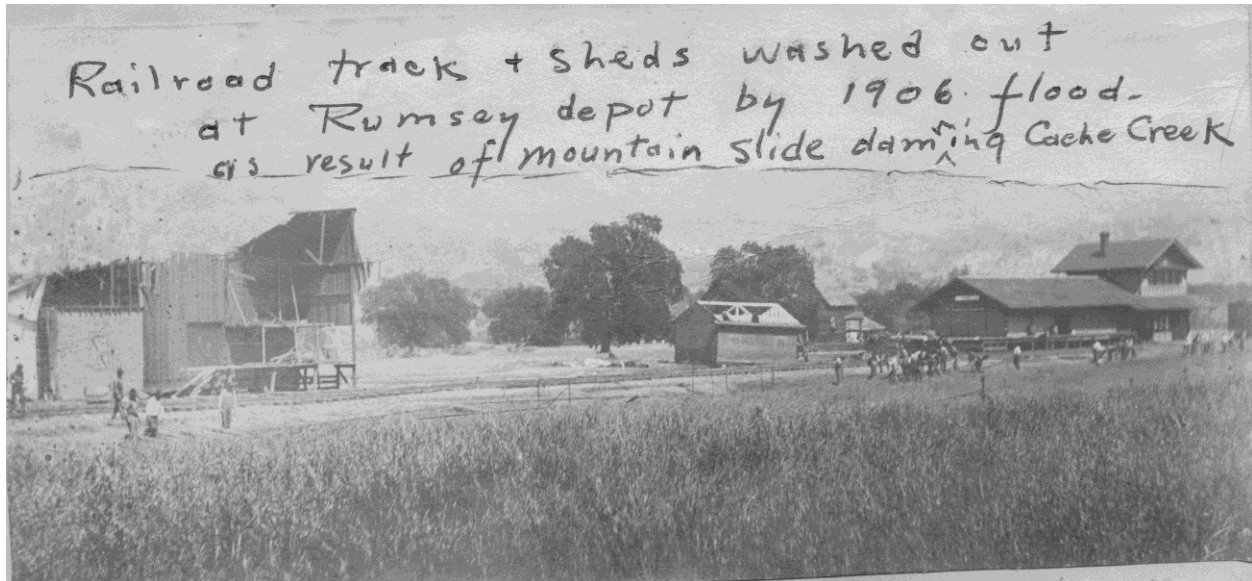


Figure 34: Damage in Rumsey from the 1906 landslide
Source: Yolo County Archives

Periodic landslides occur during every winter storm season along State Highway 16 in the Cache Creek Canyon, and CalTrans has the authority to close the highway from a gate north of Rumsey to a gate just south of the Highway 20 intersection in Colusa County. In 2017, several landslides occurred in this area due to a series of unusually strong winter storms and the highway was closed through the Canyon for several months. Another area of concern for landslides in Yolo County is State Highway 128 between Pleasant Valley Road and the Solano County line. A rockslide in 2017 closed a five mile stretch of this road. Elsewhere in the County, landslides are generally not a significant hazard. Figure 35 identifies areas with higher potential for landslides, based on soil stability characteristics.

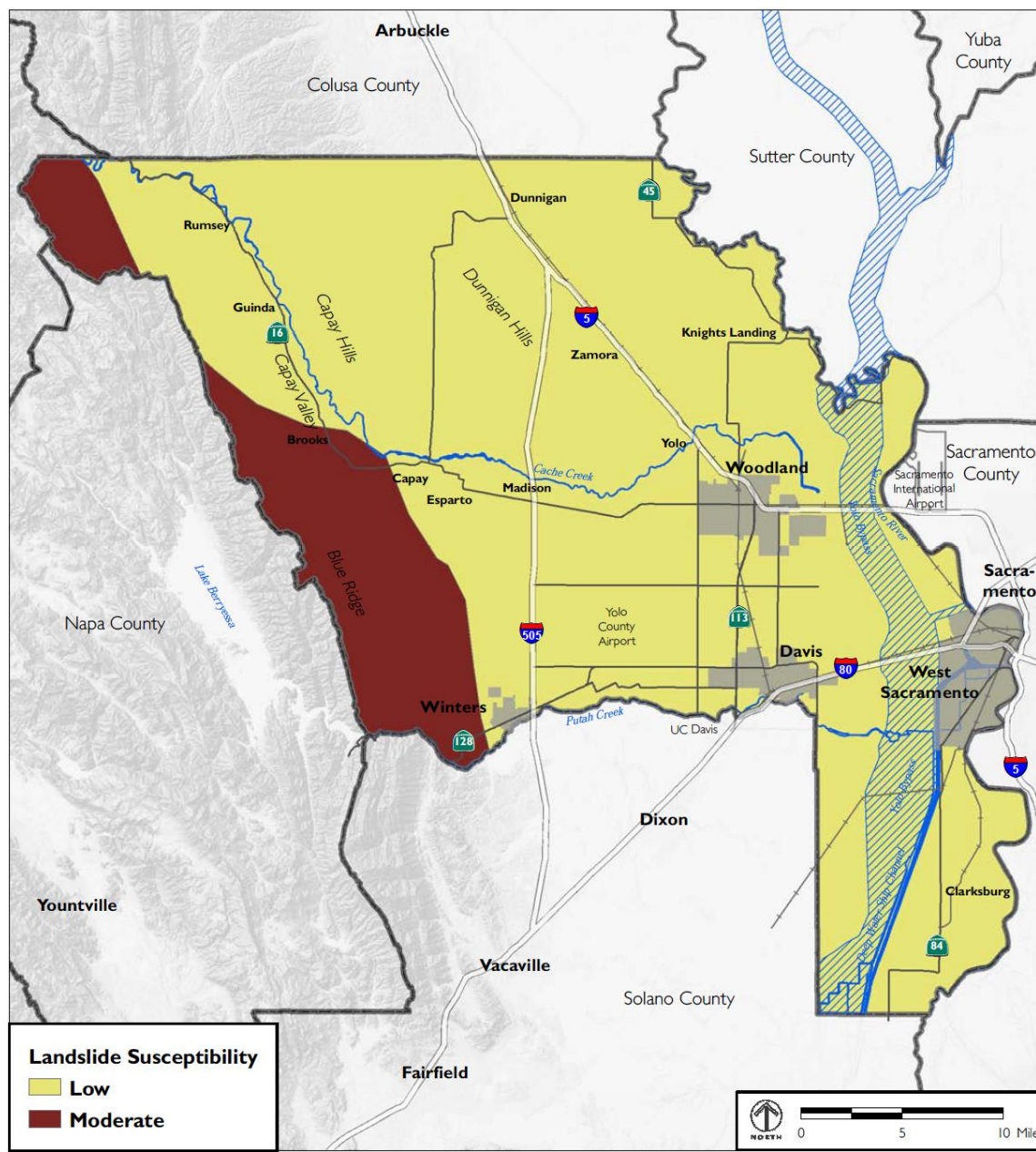


Figure 35: Landslide Susceptibility in Yolo County

Source: USGS

IMPACTS

Landslides have the potential to greatly impact life and property in Yolo County. Both State Highways 128 and 16 are significant travel routes and the possibility exists for a landslide to cause injury and death to any persons caught in the path of one. Landslides can also directly impact facilities and infrastructure, including to roads, power lines, and any buildings located downslope of a landslide prone area. While it remains likely that a large landslide could again block Cache Creek, the impacts downstream would likely be minimized due quicker response time as well as enhanced technology

that can be used to help evacuate local citizens. The impact of any landslide event depends on several factors including the amount of land moved, the amount of traffic or buildings present, and the volume of water in any affected stream systems.

EXTENT

The extent of a landslide could range from several small rocks falling to a full mass movement of land that blocks a road or dams a stream. Due its low area of occurrence, landslide is rated as **Limited** with between 10-25 percent of the operational area affected.

PROBABILITY

The probability of a landslide occurring in Yolo County is **Likely**: Between 10 percent and 100 percent chance of occurrence in next year or has a recurrence interval of 10 years or less. The probability can greatly increase after wetter storm seasons due to the higher presence of water that can displace rock and dirt, as well as after an earthquake as occurred in 1906.

VULNERABILITY

The mountainous areas of Yolo County are susceptible to landslide. The Cache Creek Canyon experiences numerous landslides every winter, which presents a threat to State Route 16 and the accompanying road infrastructure. The road is often closed during the winter storm season from north of Rumsey to the Colusa County line. Landslides along Road 40 can also limit access to emergency vehicles in this area. The other area of vulnerability in Yolo County is along state Route 128 between Winters and the Solano County line, where a landslide can wash out the road and potentially threaten power lines.

3.3.6 LAND SUBSIDENCE

Land subsidence is a gradual settling or sudden sinking of the Earth's surface owing to subsurface movement of earth materials. The principal causes are aquifer-system compaction, drainage of organic soils through groundwater pumping, underground mining, hydro-compaction, natural compaction, sinkholes, and thawing permafrost. More than 80 percent of the identified subsidence in the United States is a consequence of underground water exploitation. The increasing development of land and water resources threatens to exacerbate existing land-subsidence problems and initiate new ones.

LOCATION AND PREVIOUS OCCURRENCES

The primary cause of land subsidence in Yolo County has been groundwater pumping. See Figure 36 for the area of recorded historical and current land subsidence caused by groundwater pumping in Yolo County as of 2017.

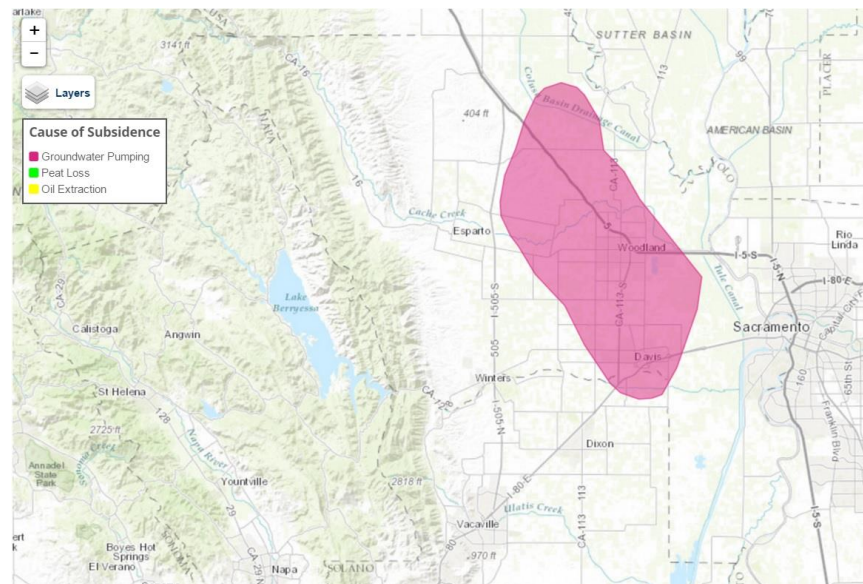


Figure 36 – Land Subsidence in Yolo County due to Groundwater Pumping
Source: USGS

See Figures 37 and 38 for a historical sampling of the total land subsidence in Yolo County over the time periods December 2006 – May 2010 and May - November 2014 respectively. Yolo County was in a declared drought during both time periods.

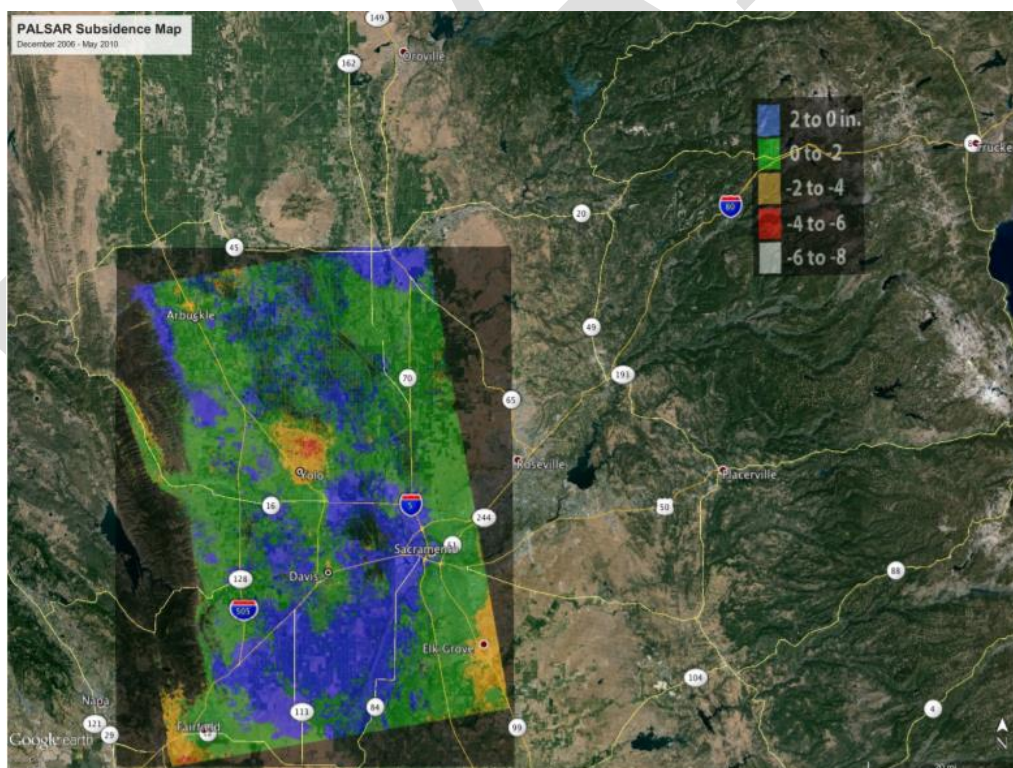


Figure 37: Land Subsidence in Yolo County December 2006 – May 2010
Source: NASA

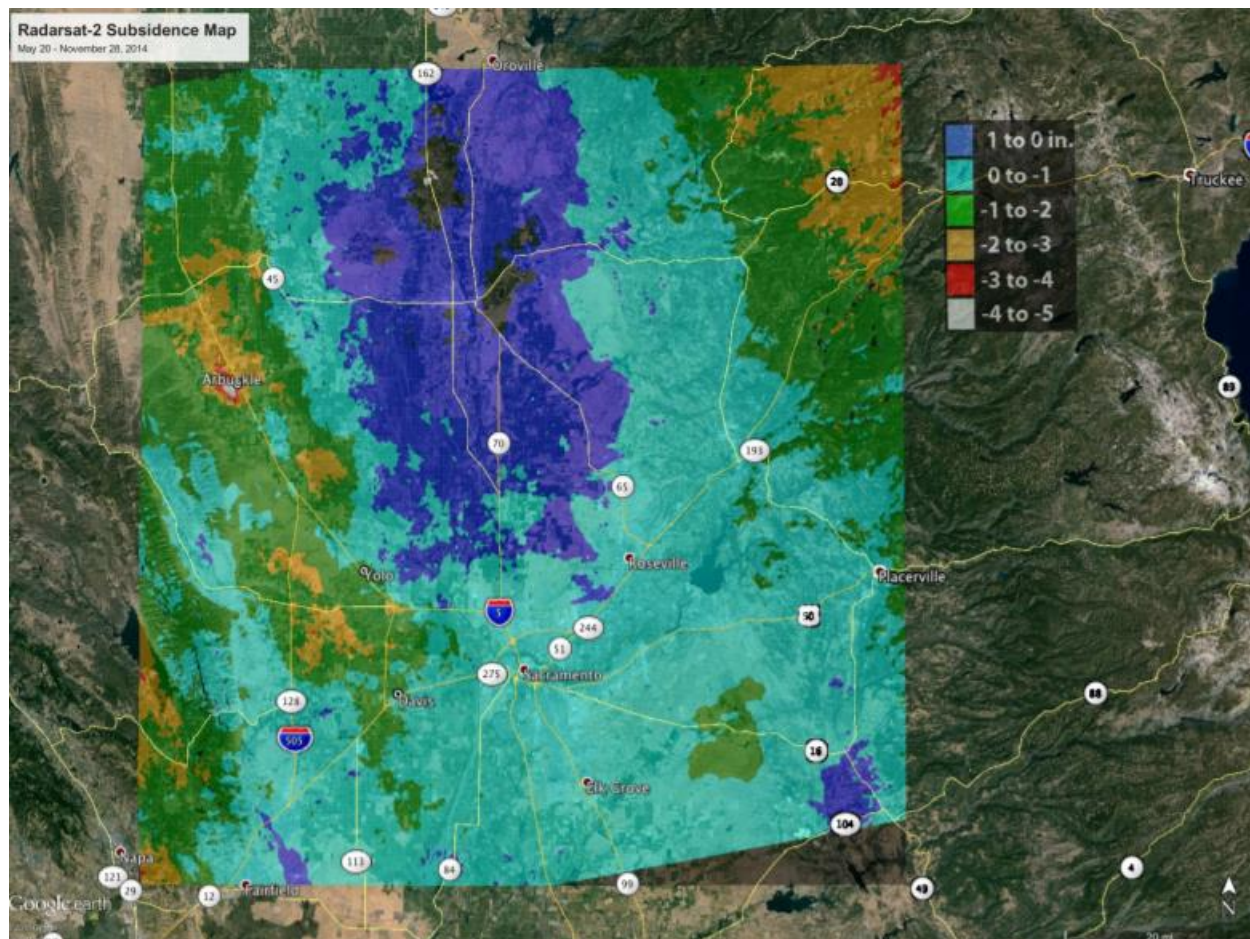


Figure 38: Land Subsidence in Yolo County May – November 2014

Source: NASA

In Yolo County, the East Yolo sub-basin area has been affected most dramatically, with communities near Zamora, Knights Landing and Woodland having experienced damage and loss of structural integrity to highways, levees, wells and irrigation canals. Wells have experienced well housing collapses. The Yolo sub-basin is bounded on the east by the Sacramento River, on the west by the Coast Range, on the north by Cache Creek, and on the south by Putah Creek. See Figure 40 for a map of expansive soils in Yolo County. Some soils in Yolo County expand and contract depending on the level of moisture that they contact, impacting their suitability for safe development. These soils vary in distribution and degree of expansiveness. Yolo County soils are characterized by low, medium, high and very high expansiveness. Soils with “Low” expansiveness have the potential to change up to 3 percent in volume between the wet and dry state of the soil. Soils with “High” and “Very High” expansiveness require structural accommodations to mitigate 4 percent to 9.5 percent changes in soil volume. Contraction volumes greater than 4 percent directly impact soil suitability for roads, bridges, structures and other types of development. Figure 40 identifies expansive soils in the County.

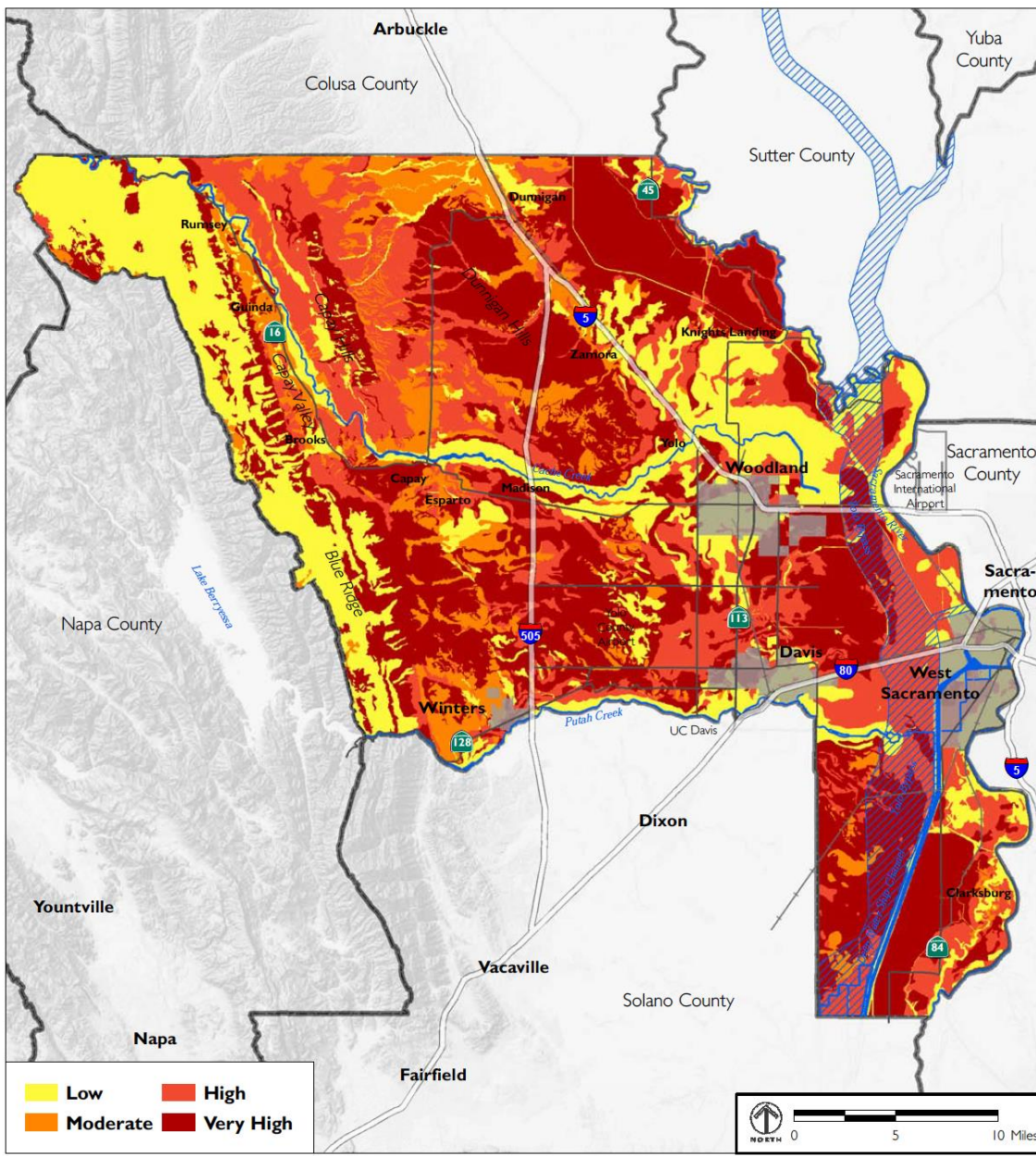


Figure 40: Expansive Soils in Yolo County
Source: USDA

IMPACTS

Land subsidence has the potential to damage drinking water wells and infrastructure throughout Yolo County, particularly in the East Yolo sub-basin where it occurs most significantly. Loss of drinking water for rural communities such as Knights Landing can cause health problems as well as significant financial impacts with the re-drilling and testing of wells and providing alternate potable water sources for citizens. Prolonged drought can exacerbate the impacts from land subsidence. As the water table is drawn down, land can sink even further and damage underground aquifers. Critical

infrastructure such as highways and levees can also become undermined due to land subsidence, becoming a threat to public safety and resulting in the devotion of significant financial resources to fix any damages.

EXTENT

The extent of land subsidence could range up to a several inches anywhere in Yolo County, but predominantly across the Yolo sub-basin where groundwater pumping has most significantly occurred. Due its low area of historic and projected occurrence, landslide is rated as **Limited** with between 10-25 percent of the operational area affected.

PROBABILITY

The probability of a land subsidence occurring in Yolo County is **Likely**: Between 10 percent and 100 percent chance of occurrence in next year or has a recurrence interval of 10 years or less. The probability can greatly increase during a drought due to the higher pumping of groundwater.

VULNERABILITY

The areas of Yolo County most vulnerable to land subsidence are the agricultural lands where groundwater pumping is most prevalent, typically away from creeks and rivers. Sinkholes are not likely to form in the County, however, due to the composition of underlying bedrock that forms the California aquifer system. Cropland is primarily susceptible to land subsidence, where the ground can sink several inches.

3.3.7 SEVERE WEATHER

Severe weather is generally described as any destructive weather event, which in Yolo County includes high wind, fog, tornado, heavy rain, extreme heat, and freeze. For the purposes of this HMP, high rain is covered under flooding.

HIGH WIND

High wind is defined as a one minute average of surface winds 40 miles per hour or greater lasting for one hour or longer, or winds gusting to 58 miles per hour or greater regardless of duration that are either expected or observed over land¹. The Beaufort scale is an empirical measure that relates wind speed to observed conditions on land and is a common measure of wind intensity (see Figure 41).

¹ NOAA.

Beaufort number	Description	Wind speed		Land conditions
		kts	km/h	
0	Calm	< 1	< 1	Calm. Smoke rises vertically.
1	Light air	1 – 2	1 – 5	Wind motion visible in smoke.
2	Light breeze	3 – 6	6 – 11	Wind felt on exposed skin. Leaves rustle.
3	Gentle breeze	7 – 10	12 – 19	Leaves and smaller twigs in constant motion.
4	Moderate breeze	11 – 15	20 – 28	Dust and loose paper raised. Small branches begin to move.
5	Fresh breeze	16 – 20	29 – 38	Branches of a moderate size move. Small trees begin to sway.
6	Strong breeze	21 – 26	39 – 49	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult. Empty plastic garbage cans tip over.
7	High wind, Moderate gale, Near gale	27 – 33	50 – 61	Whole trees in motion. Effort needed to walk against the wind. Swaying of skyscrapers may be felt, especially by people on upper floors.
8	Gale, Fresh gale	34 – 40	62 – 74	Some twigs broken from trees. Cars veer on road. Progress on foot is seriously impeded.
9	Strong gale	41 – 47	75 – 88	Some branches break off trees, and some small trees blow over. Construction/temporary signs and barricades blow over. Damage to circus tents and canopies.
10	Storm, Whole gale	48 – 55	89 – 102	Trees are broken off or uprooted, saplings bent and deformed. Poorly attached asphalt shingles and shingles in poor condition peel off roofs.
11	Violent storm	56 – 63	103 – 117	Widespread vegetation damage. Many roofing surfaces are damaged; asphalt tiles that have curled up and/or fractured due to age may break away completely.
12	Hurricane	≥ 64	≥ 118	Very widespread damage to vegetation. Some windows may break; mobile homes and poorly constructed sheds and barns are damaged. Debris may be hurled about.

Figure 41: Beaufort Wind Scale

LOCATION AND PREVIOUS OCCURRENCES

High wind has the potential to affect all areas of Yolo County, as weather patterns are only marginally predictable and long-term forecasting is only marginally effective for specific area forecasts. High winds often occur with the onset of atmospheric river events (see section on Heavy Rains). The National Climatic Data Center (NCDC) provides a listing of all the high wind events to affect Yolo County since 1950, the most recent of which is reflected in Table 6 and described below.

Type	Area	Date of Event	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Strong Wind	Yolo County	12/11/14 – 12/12/14	33-60 kts.	0	0	\$515,000	\$0

Table 6: Historic Wind Events in Yolo County

12/11/2014 – 12/12/2014: An atmospheric river event brought periods of heavy rainfall, flooding from overly saturated grounds and high river/stream water levels. Windy conditions persisted through the event, causing trees and tree branches to fall down and localized power outages affecting hundreds of thousands of homes across Northern California. More than 3,182 people in Davis lost power. Winds were reported to reach as high as 50-60 mph in the valley/foothill region, and over 100 mph in the mountains. Gusts to 44 miles per hour were observed at the Davis Airport on 12/12. On December 22, 2014 Governor Jerry Brown declared a state of emergency for heavy rain, flooding and wind damage in counties including Tehama, Lake, Shasta, and Yolo.

5/14/2016: The Yolo County Airport experienced gusty winds which dragged a hot air balloon about 100 yards as it was getting ready for takeoff, injuring a woman.

1/3/2017 – 2/23/2017: Several atmospheric river events with accompanying high winds moved through Northern California from January to February 2017, resulting in the declaration of three separate Presidential disaster declarations all of which included Yolo County. On January 18th, especially gusty winds between 30-50 miles per hour wreaked havoc throughout Davis and other parts of Yolo County. Power outages were reported in the Clarksburg area, causing pumps to fail which threatened communities with flooding. In Davis alone, several trees fell onto cars, one tree ruptured a water line, and over 16,000 Davis residents lost power. On the Interstate 5 causeway over the Yolo Bypass, an eighteen wheeler was knocked over by a gust of wind, causing the cab to partly hang over the water-filled Bypass with two people trapped inside.

IMPACTS

High winds can cause a wide range of damages including to mobile homes, power lines, billboards, airplanes, vehicles, roofs and other structures. Trees toppled over by high winds can fall onto power lines and rupture underground water mains, disrupting services to customers. Trees can also cause damages by falling onto structures, cars and even people. As shown in previous events in Yolo County, high winds also have the potential to cause traffic and aviation accidents, which could result in injuries and possibly even death.

EXTENT

High wind was rated as **Critical** with between 35-50 percent of the operational area potentially affected. Wind gusts up to a Level 10 on the Beaufort scale could potentially be experienced in Yolo County.

PROBABILITY

The probability of future occurrences in the next 100 years is **Highly Likely**: Near 100 percent

chance of occurrence next year or happens every year.

VULNERABILITY

No one area of Yolo County is more vulnerable to wind than any other, though certain locations are more susceptible to damage due to building construction and the amount of tree canopy. The cities of Davis and Woodland are particularly susceptible to wind damage from fallen trees, particularly on many of their main streets. Trees can fall on power lines, causing power outages, and can also fall on people and cars. People who live in homes with large tree branches over their roofs are particularly susceptible to high winds. Mobile home parks are vulnerable to high wind due to their light frame construction. There are mobile home parks located in all four cities and in the unincorporated county. Aviation vehicles, including hot air balloons and small airplanes, are also susceptible to high winds and potential issues can arise when they are taking off and landing.

FOG

Fog is a collection of water droplets or ice crystals suspended in the air at or near the Earth's surface. Fog results from air being cooled to the point where it can no longer hold all of the water vapor it contains. Fog can form in a number of ways, depending on how the cooling that caused the condensation occurred. The most common types in Yolo County are radiation and advection fog. A thick, dense fog known as tule fog is a radiation fog that also can become present in Yolo County particularly from late fall through early spring. Tule fog occurs when there is relative high humidity, calm winds, and rapid cooling. Visibility in tule fog is usually less than an eighth of a mile, and visibility can reach near zero.

LOCATION AND PREVIOUS OCCURRENCES

Fog, including tule fog, can occur in all areas of Yolo County though it is found more in lower elevations where the air is denser. Tule fog is characteristically confined mainly to the Central Valley of Northern California due to the mountain ranges surrounding it, including the Blue Ridge Mountains on the western border of Yolo County. Fog is most often experienced in Yolo County during the winter.

There has been one major recorded traffic accident in Yolo County due to fog:

On February 3rd, 1984, a 70 vehicle pileup occurred on the Yolo Causeway in West Sacramento due to fog. Cars, oil trucks, and a garbage truck were involved and the causeway was covered in debris for two miles. There were no fatalities, but at least two motorists suffered broken legs and others received minor injuries. The westbound lanes of the causeway were closed for four hours.

Other traffic accidents due to fog have occurred on highways in the Central Valley. In December, 1997, an accident due to fog on Interstate 5 in Sacramento County resulted in five deaths and 28 injuries. On November 3, 2007, heavy fog caused a pileup on State Route 99 near Fresno that resulted in two deaths and 39 injuries. Similar accidents have the potential to occur in Yolo County on any of its major interstates.

One minor accident due to fog has been recorded in Yolo County since the last plan update:

1/15/2015: A West Sacramento fire engine was rear ended by a car while stopped on Interstate 80 responding to an incident. Even with lights and flares laid out, visibility was only 30-100 feet with heavy fog present. No injuries were reported.

IMPACTS

The most common impacts from fog are traffic accidents, particularly on roads with higher speed limits including interstate and major state highways. Major accidents associated with fog can result in injury and death, as has occurred in several incidents close to Yolo County.

EXTENT

Fog was rated as Critical with between 35-50 percent of the operational area potentially affected. Fog with near 0 foot visibility could potentially be experienced anywhere in Yolo County.

PROBABILITY

The probability of future occurrences in the next 100 years is **Highly Likely**: Near 100 percent chance of occurrence next year or happens every year.

VULNERABILITY

The areas of Yolo County most vulnerable to fog include Interstates 5 and 80 as well as US 50 and State Route 113 where a potential multi-casualty vehicle incident could occur. Fog can also be hazardous for aircraft as well as for ships attempting to navigate the Deepwater Ship Channel.

TORNADO

Tornadoes are rotating columns of air marked by a funnel-shaped downward extension of a cumulonimbus cloud whirling at destructive speeds of up to 300 mph, usually accompanying a thunderstorm. Tornadoes are the most powerful storms that exist, and damage paths can be in excess of one mile wide and 50 miles long. The Enhanced Fujita Scale (see Figure 42) is commonly used to rate the intensity of tornadoes in the United States based on the damages that they cause. Tornadoes can affect the Yolo County area primarily during the rainy season in the late fall and early spring.

Enhanced Fujita Scale	
EF-0	65–85 mph winds
EF-1	86–110 mph
EF-2	111–135 mph
EF-3	136–165 mph
EF-4	166–200 mph
EF-5	>200 mph

Figure 42: Enhanced Fujita Scale

LOCATION AND PREVIOUS OCCURRENCES

Compared to the areas east of the Rocky Mountains, tornado occurrence over the western United States is much less frequent. However, climatological studies reveal certain subregions throughout the west where there is a significant increase in tornado occurrence. Two of the regions are in California: the Los Angeles area, and the Central Valley of California comprising the Sacramento and San Joaquin Valleys. A tornado could essentially form anywhere in Yolo County, though they are rare and often of low intensity. The largest recorded tornado in the Yolo County area formed in Sacramento in 1978 and registered as an EF-2, damaging an elementary school and several homes and businesses. Since the last plan update, there has been one documented occurrence of a tornado in Yolo County according to NCDC:

1/28/2014: An EF-0 tornado was observed and recorded over Conaway Ranch just southeast of Woodland, touching down near County Roads 103 and 25 (see Figure 43). The tornado traveled about 100 yards before lifting up and touching down again and traveling another 100 yards. No visible damage was observed.



Figure 43: 2014 Woodland Tornado
Source: CBS Sacramento

Additional historic tornado touchdowns in Yolo County include:

3/20/2005: An EF-0 tornado traveled through an agricultural area. Damage was caused to a property fence and to a grove of almond trees in Dunnigan.

2/21/2005: An EF-0 tornado touched down in the Southport neighborhood of West Sacramento. Primarily tree and fence damage occurred, though other minor damage from flying debris was noted.

IMPACTS

Tornadoes can cause damage to property and loss of life. While most tornado damage is caused by violent winds, the majority of injuries and deaths generally result from flying debris. Property damage can include damage to buildings, fallen trees and power lines, broken gas lines, broken sewer and water mains, and the outbreak of fires. Agricultural crops and industries may also be damaged or destroyed. Access roads and streets may be blocked by debris, delaying necessary emergency response.

Yolo County would most likely be impacted from an EF-0 or an EF-1 tornado, with little to moderate damage. Trees and other infrastructure may experience minor damage, as has occurred in the previous occurrences of tornadoes touching down in Yolo County. The potential does exist for an EF-0 or an EF-1 tornado to cause injury and death, as has occurred with other tornadoes of this intensity across the Country.

While unlikely, a stronger EF-2 tornado does have the potential to occur in Yolo County and could cause considerable damages to buildings and infrastructure. Such a tornado could destroy mobile homes, tear roofs off well-constructed houses, shift the foundations of frame houses, and lift cars off the ground.

EXTENT

Tornado was rated as **Critical** with between 35-50 percent of the operational area potentially affected. A tornado could potentially be experienced at any of the lower elevations of Yolo County and could potentially be an EF-2.

PROBABILITY

The probability of future occurrences in the next 100 years is **Occasional**: Between 1 percent and 10 percent chance of occurrence in the next year or has a recurrence interval of 11 to 100 years.

VULNERABILITY

Tornadoes are more likely to form in the valley area of Yolo County, including the four cities, than in the more mountainous areas such as the Capay Valley. As with high winds, certain locations are more susceptible to damage due to building construction and the amount of tree canopy. The Cities of Davis and Woodland are particularly susceptible to tornado damage from fallen trees, particularly on many of their main streets. Trees can fall on power lines and cause power outages, and can also fall on people and cars. Power lines, transmission lines, and radio towers are all vulnerable to a direct hit from a tornado. A greater amount of property is vulnerable to damage from a tornado than a regular wind due to the higher wind speeds of tornado. Mobile home parks are vulnerable to tornadoes due to their light frame construction, as are industrial and commercial sites with loose materials. There are mobile home parks located in all four cities and in the unincorporated county. Aviation vehicles, including hot air balloons and small airplanes, are also susceptible to tornadoes.

EXTREME HEAT

Extreme heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks. A heat wave is an extended period of extreme heat, often with high humidity. When relative humidity is factored in, the temperature can feel much

hotter as reflected in the Heat Index (see Figure 44):

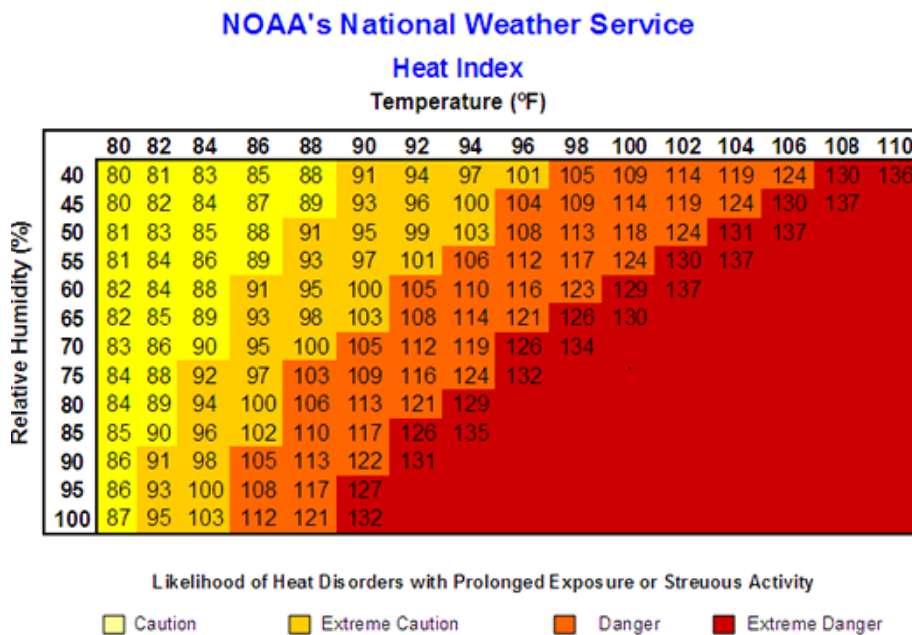


Figure 44 – Heat Index

Heat kills by taxing the human body beyond its abilities. In a normal year, about 175 Americans succumb to the demands of summer heat. Among natural hazards, only cold weather takes a greater toll. In the 40-year period from 1936 through 1975, nearly 20,000 people were killed in the United States by the effects of heat and solar radiation. In the heat wave of 1980, more than 1,250 people died.

LOCATION AND PREVIOUS OCCURRENCES

Extreme heat has the potential to impact all areas of Yolo County, though people who live in cities can be at greater risk because concrete and asphalt store heat for longer and release it throughout the night. According to the 2018 California State Hazard Mitigation Plan, the worst single heat wave event in California occurred in Southern California in 1955, when an eight-day heat wave resulted in 946 deaths. According to NCDC, several heat events have occurred in and around Yolo County since the last plan update:

6/7-6/9/2013: Excessive heat impacted the Southern Sacramento Valley, with temperatures ranging from 100 to 110 degrees. The heat sickened at least 15 people, two critically, at the Del Oro High School graduation ceremony in Loomis, Sacramento County.

6/28-7/4/2013: High temperatures ranged from approximately 103 to 110 degrees for the Southern Sacramento Valley, with downtown Sacramento tying all time record of seven consecutive days of 105 degrees or higher for a maximum temperature.

In 2015, a late summer heat wave hit the Sacramento area for several days in September. Temperatures reached over 100 degrees for four consecutive days, including a high of 107 degrees.

6/16-6/24/2017: High temperatures ranged 110-106 degrees throughout the Sacramento area. Yolo County provided the public with information on places to cool down in the County, and a cooling center was opened in the Capay Valley.

From 1950 through 1999, there have been no noticeable heat waves in Yolo County according to the National Climatic Data Center; heat events were observed in 1999, 2000, 2005, 2007, and 2008 though there were no noticeable impacts.

IMPACTS

Heat waves do not cause damage or elicit the immediate response of floods, fires, earthquakes, or other more “typical” disaster scenarios. While heat waves are obviously less dramatic, they are potentially more deadly. Heat emergencies are often slower to develop, taking several days of continuous, oppressive heat before a significant or quantifiable impact is seen. Heat waves do not strike victims immediately, but rather their cumulative effects slowly take the lives of vulnerable populations. Sickness can occur if someone has been in extreme heat for too long, or has over-exercised for his or her age or physical condition. Extreme heat can be more dangerous for older people, the very young, and people who are sick or overweight. Areas lacking air conditioning or electricity, including mobile home parks and rural buildings, can become susceptible to extreme heat effects. When combined with low humidity, extreme heat also can contribute to the start and spread of wildfires.

EXTENT

Extreme heat was rated as Critical with between 35-50 percent of the operational area potentially affected.

PROBABILITY

The probability of future occurrences in the next 100 years is **Highly Likely**: Near 100 percent chance of occurrence next year or happens every year.

VULNERABILITY

All of Yolo County is vulnerable to high temperatures that typically plague the Central Valley of California. The effects can be felt greater in the cities, where the urban heat island effect takes over. Susceptible populations include the young and elderly, as well as those without adequate air conditioning. High temperatures can cause brownouts, and increase the susceptibility of people to the effects of heat. Though crops in Yolo County are adaptable to heat, they can become vulnerable to prolonged periods of high temperatures.

FREEZE

Freeze is defined as a period in which temperatures fall below the freezing point of 32 degrees Fahrenheit or 0 degrees Celsius. A hard freeze is a period of at least four consecutive hours of air temperature that are below 25 degrees Fahrenheit. Freeze and extreme cold often accompany a winter storm or are left in its wake. They are most likely to occur in the winter months of December, January, and February. When the wind is factored in, the temperature can feel even colder as reflected in the wind chill index (see figure 45).

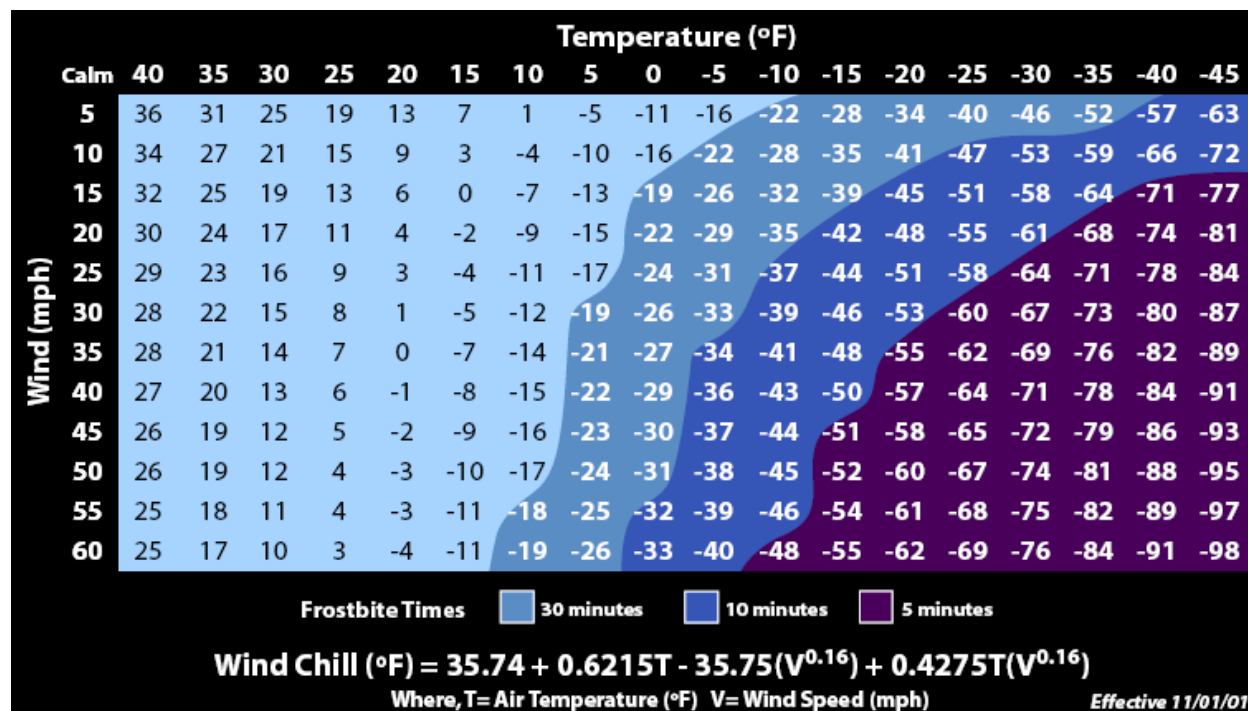


Figure 45: Wind Chill Index

LOCATION AND PREVIOUS OCCURRENCES

Freeze has the potential to impact all areas of Yolo County. According to NCDC there have been no major freeze events since the last plan update. Notable freeze events documented in and around Yolo County before this time include:

01/14-01/15 2007: A very cold arctic airmass settled over the region and temperatures in the Central Valley of California dropped sharply for a relatively prolonged period of time. New daily low temperature records were set at the Sacramento Executive Airport on January 14th and 15th. For the 14th the new record was 22 degrees and for the 15th the new record was 21 degrees. Extensive crop damage in excess of \$5 million was caused by the prolonged sub-freezing temperatures.

04/20-04/24/2008: A cool and dry airmass coupled with light winds resulted in cold morning temperatures from April 20th to the 24th in the Sacramento and Northern San Joaquin Valleys and adjacent foothills. Record low temperatures were set in several locations; the temperature dropped to 34 degrees at the Sacramento Executive Airport on April 20th, setting a new daily low temperature record. Frost and freezing temperatures caused significant damage to young walnuts, prunes, peaches, pears, and wine grapes across the area.

12/06-12/10/2009: A hard freeze caused pipes and sprinkler systems to burst throughout the southern Sacramento Valley, causing water damage to homes and businesses. There were nine water main breaks reported in Sacramento. Some crop damages in orchards was also reported.

The lowest temperature ever recorded in Sacramento was 17 degrees in 1932. From December 20th 1990 – January 1st 1991, Sacramento had a record number 13 consecutive days with minimum

temperatures below freezing.

IMPACTS

Prolonged exposure to the cold can cause frostbite or hypothermia and can become life-threatening. Infants and the elderly are most susceptible. Pipes may freeze and burst in homes or buildings that are poorly insulated or without heat. Extreme cold can disrupt or impair communications facilities. Extreme cold can also affect the crops grown in Yolo County.

EXTENT

Freeze was rated as **Critical** with between 35-50 percent of the operational area potentially affected. Temperatures could potentially reach into the low 20 degrees Fahrenheit for several days, and below freezing for several weeks, as has historically occurred in the Sacramento area.

PROBABILITY

The probability of future occurrences in the next 100 years is **Likely**: Between 10 percent and 100 percent chance of occurrence in next year or has a recurrence interval of 10 years or less.

VULNERABILITY

All of Yolo County is vulnerable to freeze. The effects can be felt greater in the mountainous areas, where the lower temperatures occur. These areas of the County are not heavily populated. Susceptible populations include the young and elderly, as well as those without adequate heating. Though crops in Yolo County are adaptable to freeze, they can become vulnerable to prolonged periods of low temperatures. Almond production can decrease during periods of low temperatures.

3.3.8 VOLCANO

A volcano is a mountain that opens downward to a reservoir of molten rock below the surface of the earth. Unlike most mountains, which are pushed up from below, volcanoes are vents through which molten rock escapes to the earth's surface. When pressure from gases within the molten rock becomes too great, an eruption occurs. Eruptions can be quiet or explosive. There may be lava flows, flattened landscapes, poisonous gases, and flying rock and ash that can sometimes travel hundreds of miles downwind. The Volcanic Explosivity Index (VEI) is a commonly used relative measure of the explosiveness of volcanic eruptions on a scale of one to eight based on eruption cloud height and qualitative observations (see Figure 46).

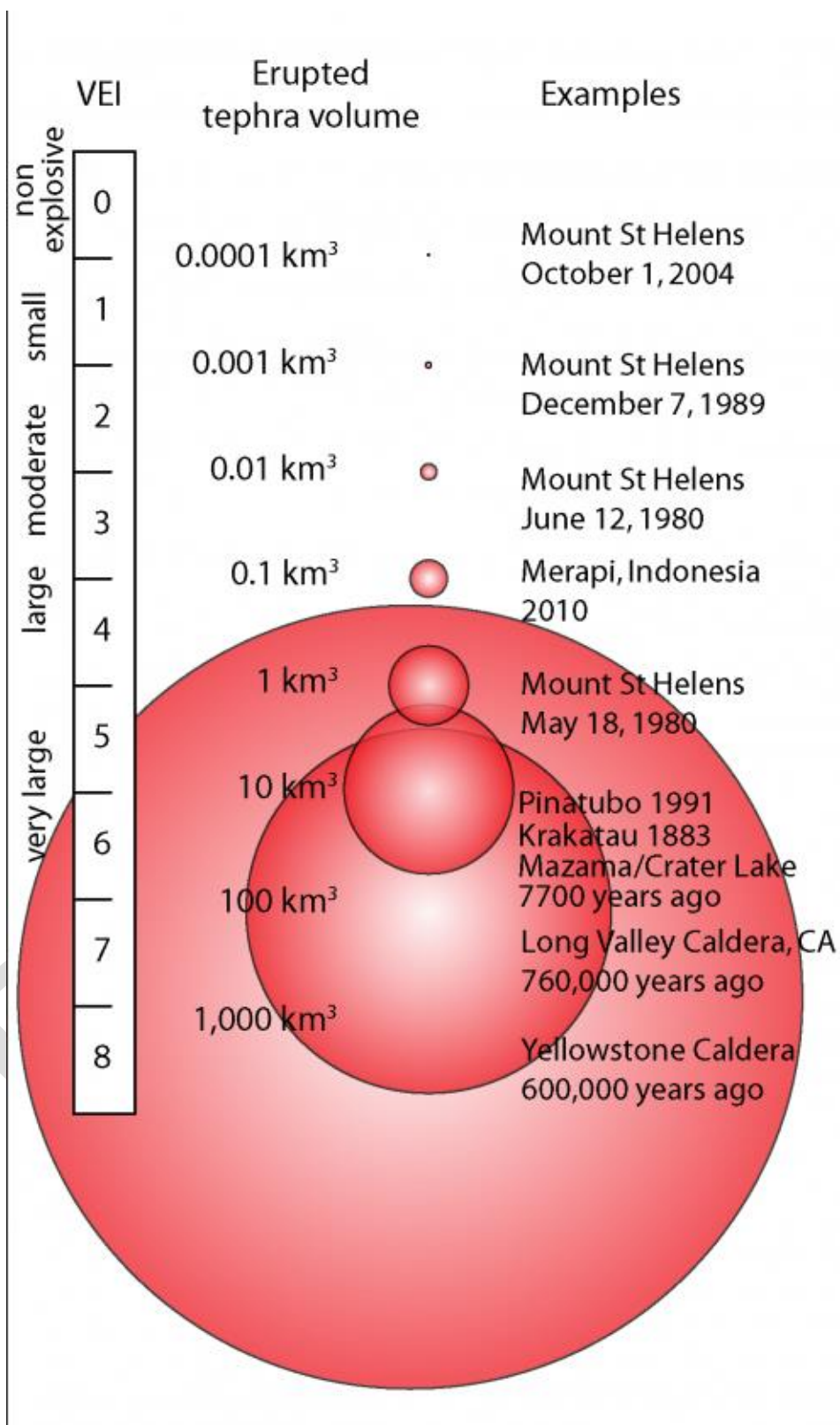


Figure 46: Volcanic Explosivity Index (VEI)

Because of their intense heat, lava flows are great fire hazards. Lava flows destroy everything in their path, but most move slowly enough that people can move out of the way.

Fresh volcanic ash, made of pulverized rock, can be abrasive, acidic, gritty, gassy and odorous. While not immediately dangerous to most adults, the acidic gas and ash can cause lung damage to small infants, to older adults and to those suffering from severe respiratory illnesses. Volcanic ash also can damage machinery, including engines and electrical equipment. Ash accumulations mixed with water become heavy and can collapse roofs. Volcanic ash can affect people hundreds of miles away from the cone of a volcano.

Sideways directed volcanic explosions, known as "lateral blasts," can shoot large pieces of rock at very high speeds for several miles. These explosions can kill by impact, burial or heat. They have been known to knock down entire forests.

Volcanic eruptions can be accompanied by other natural hazards, including earthquakes, mudflows and flash floods, rock falls and landslides, acid rain, fire, and (under special conditions) tsunamis.

LOCATION AND PREVIOUS OCCURRENCES

While there are no known volcanoes located within Yolo County, there is a history of volcanic action in and around the state of California, including areas in the states of Oregon and Washington. Figure 47 shows all of the volcanos in California rated as very high or high threat by the USGS (white triangles are low threat or inactive):



Figure 47: Very High and High Threat Volcanoes in California

Source: USGS

The closest volcanic area to Yolo County is the Clear Lake/Mt. Konocti Volcanic Field. The most prominent volcanic feature is 300,000 year-old Mount Konocti, rising about 3,200 feet above the southwestern shore of Clear Lake in Lake County. The most recent eruptions occurred about 11,000 years ago around Mount Konocti. Although Clear Lake Volcanic Field has not erupted for several millennia, sporadic volcanic-type earthquakes do occur, and the numerous hot springs and volcanic gas seeps in the area point to its potential to erupt again.

Another volcanic area of concern is the Mt. Shasta/Lassen Volcanic Center/Medicine Lake area. Mt. Shasta is a stratovolcano and the most voluminous of all the Cascade Range volcanoes. Its 14,163 foot high snow- and ice-clad edifice holds the headwaters of the Sacramento River. Preliminary work indicates the volcano erupted in the past 200-300 years. Hot springs and volcanic gases seep from the summit indicating a relatively young and still-hot system. Non-volcanic shedding of young volcanic rock and ash from Mount Shasta's steep slopes occurs during heavy rainfall or glacial floods. In the last 1,000 years, more than 70 mudflows have inundated stream channels. The record of eruptions over the last 10,000 years suggests that, on average, at least one eruption occurs every 600 to 800 years at Mt. Shasta.

The most recent volcanic activity in California has occurred at the Lassen Volcanic Center, home to Lassen Peak. The area has been relatively quiet for the last 25,000 years with three notable exceptions, most notably the Lassen Peak Eruption (1914 to 1917). In May of 1915, partially molten rock oozing from the vent began building a precarious lava dome. The dome collapsed on May 19 sending an avalanche of hot rock down the north flank of the volcano. Three days later, a vertical column of ash exploded from the vent reaching altitudes of 30,000 feet (See Figure 48) and a Level 3 on the VEI scale. The ash column spawned a high-speed ground flow of hot gas and fragmented lava. Ash from the top of the column drifted downwind 200 miles to the east, as far as Winnemucca, Nevada. On both days, melting snow fueled mudflows, flooding drainages 20-30 miles away.

The Medicine Lake volcanic region covers a total area of about 850 mi². Seven of the nine eruptions of the last 5,200 years included an early explosive phase. The two youngest sent ash tens of miles downwind during their explosive phases before switching to slow effusion of thick, glassy-looking lava flows. Exploratory drilling and geophysical studies reveal a high temperature geothermal system below Medicine Lake volcano fueled by a deeper zone of partially molten rock.

The third volcanic area of concern is the Long Valley Volcanic Center/Inyo Craters/Mono Lake area. The most recent activity in the area was about 300 years ago in Mono Lake. Both Long Valley Caldera and Mammoth Mountain have experienced episodes of heightened unrest over the last few decades (earthquakes, ground uplift, and/or volcanic gas emissions). The latest eruptions at Inyo Craters took place about 600 years ago when explosive eruptions and lava flows produced tephra deposits and obsidian lava domes. This area has experienced Level 0 – Level 3 events on the VEI over the past 5,000 years.

Volcanic eruptions have also occurred in the Cascade Range of Oregon and Washington, the most significant being the eruption of Mt. St. Helens in May of 1980 which registered at a Level 5 on the VEI.



Figure 48: The 1915 Eruption of Lassen Peak
Source: National Park Service

IMPACTS

The most likely volcanic hazard for Yolo County is the deposition of ash from an eruption in any of the aforementioned volcanic areas. The release of large amounts tephra (ash and larger particles), even in depths of as little as five millimeters could disrupt communications and transportation and affect breathing of certain at risk populations throughout the County. Seiches could also occur, particularly in Clear Lake around the Clear Lake Volcanic Field. This could affect water flows down Cache Creek into Yolo County, resulting in flooding. Pyroclastic and debris flows from an eruption of Mt. Shasta could impact the Sacramento River, either through damming and/or melting of snow. This could result in the Sacramento River flowing outside its banks along with possibility of debris reaching Yolo County. Yolo County is not at significant risk from lava flow due to its distance from volcanic areas; Yolo County is separated from the Clear Lake Volcanic Field by the Blue Ridge mountain range.

EXTENT

Volcanic activity was rated as **Catastrophic** with more than 50 percent of the operational area potentially affected by ash fall for each jurisdiction. One to three inches of ash could potentially fall in parts of Yolo County. A significant eruption of Lassen Peak or Mt. Shasta could reach from a Level 3 to a Level 5 on the VEI.

PROBABILITY

Based on monitoring analysis, the probability of future occurrences in the next 100 years is **Unlikely**: less than 1 percent chance of occurrence in the next 100 years or has a recurrence interval of greater than every 100 years.

VULNERABILITY

While the County is not vulnerable to a lahar or mud flow from a volcano, it could become susceptible to ash fall. Populations most susceptible to breathing problems associated with ash include children and the elderly. Water treatment facilities throughout the County would also be susceptible to ash.

3.3.9 WILDFIRE

A wildfire is a fire that occurs in an area of combustible vegetation. The three conditions necessary for a wildfire to burn are fuel, heat, and oxygen. Fuel is any flammable material that can burn, including vegetation, structures, and cars. The more fuel that exists and the drier that fuel is, the more intense the fire can be. Wildfires can be started naturally through lighting or combustion, or can be set by humans. There are many sources of human-caused wildfires including arson, power lines, a burning campfire, an idling vehicle, trains, and escaped controlled burns. On average, four out of five wildfires are started by humans. Uncontrolled wildfires fueled by wind and weather can burn acres of land and everything in their path in mere minutes, and can reach speeds up to 15 miles per hour. On average, more than 100,000 wildfires burn 4 to 5 million acres of land in the United States every year. Although wildfires can occur in any state, they are most common in the Western states including California where heat, drought, and thunderstorms create perfect wildfire conditions.

Wildfires are of primary concern when they occur in the Wildland Urban Interface (WUI), which is defined as areas where homes are built near or among lands prone to wildfire. Most structures in the WUI are not destroyed from direct flame impingement, but from embers carried by wind. With continued growth in the WUI throughout California, wildfire risk will only increase.

LOCATION AND PREVIOUS OCCURRENCES

Wildfire danger varies throughout Yolo County. The County is characterized by relatively level valley floor landscapes to the south and east; this lack of topography and complex fuels leads to very little severe fire behavior. In the increasingly hilly landscapes rising to the north and west, the rugged topography creates a landscape where fires can spread rapidly upslope and access for suppression equipment is limited.

To quantify the potential risk from wildfires, the California Department of Forestry and Fire Protection (Cal Fire) has developed a Fire Hazard Severity Scale which uses three criteria in order to evaluate and designate potential fire hazards in wildland areas. The criteria are fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). According to the Cal Fire wildfire severity map for Yolo County (see Figure 49), the western portion of the county, west of Esparto and Winters, is designated as a Very High Fire Severity Zone (VHFSZ).

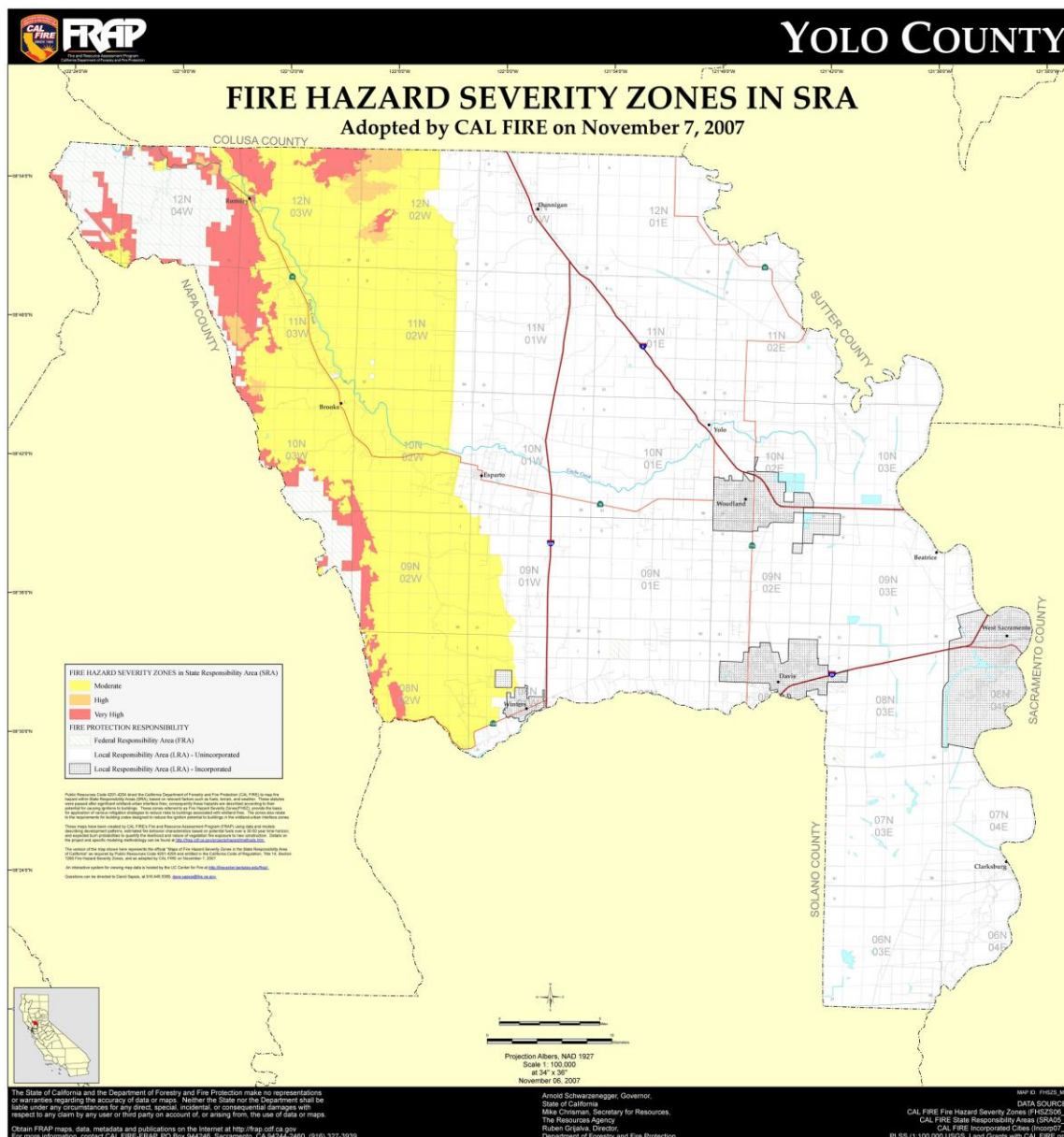


Figure 49 – Fire Hazard Severity Zones in Yolo County
Source: CalFire

The VHFSZ in Yolo County is in a State Responsibility Area (SRA), meaning that fire suppression is under the control of the State Department of Forestry and Fire protection (Cal Fire). The U.S.G.S. has also designated these areas as having high wildfire potential (see Figure 50) as of 2014. Areas with higher wildfire potential values represent fuels with a higher probability of experiencing extreme fire behavior under conducive weather conditions.

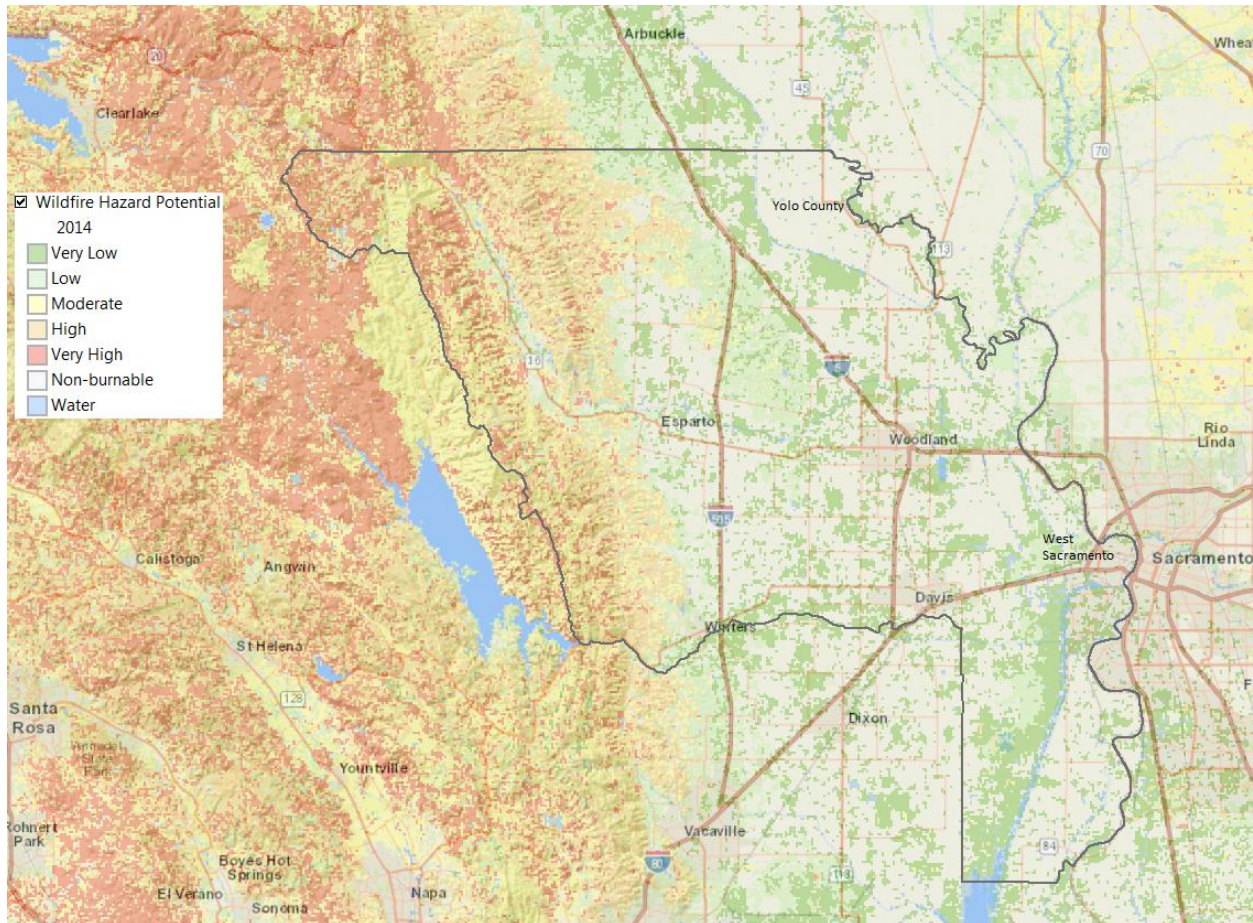


Figure 50: Wildfire Potential in Yolo County
Source: USGS

The County and its municipalities fight a large number of vegetation fires, particularly during the summer. These fires tend to occur along major highways and railroads, and usually do not damage structures. However, fires can be exacerbated by hot north winds during periods of extremely low humidity. In addition, if they are fed by dry grass and vegetation they can easily grow out of control. Wildfire can damage structures and facilities, and the County must be prepared for protection from dangerous wildfires, especially in the WUI where urban and non-urban landscapes meet.

Yolo County is located in the Sonoma-Lake-Napa Unit (LNU), one of twenty one (21) California Department of Forestry and Fire Protection (CAL FIRE) administrative units. The Unit was created in 1996 with a merger of the then Sonoma Ranger Unit, and the Lake-Napa Unit. It is comprised of the six counties of Sonoma, Lake, Napa, Yolo, Colusa, and Solano. LNU has primary responsibility for more than 2.3 million acres of CAL FIRE Direct Protection Area (DPA) lands, more than any other unit. It has the third largest population living within CAL FIRE DPA, and ranks the third in average number of annual fires. The Unit is divided into four divisions and ten field battalions. The boundaries of Sonoma County define the West Division with four battalions. The South Division is defined by Napa County and has three battalions. The North Division encompasses Lake County and

has two battalions. The East Division consists of Yolo, Solano, and Colusa Counties and has two battalions.

There are a wide range of fuels in the East Division. Fuels range from agricultural farmland (wheat, safflower, cut stubble), annual grasses, oak woodland, 15 – 50 year old chaparral, large stands of decadent brush and timber in the higher elevations of the battalion. Due to aggressive fire suppression tactics and lack of aggressive wildland fuels management, both the vertical arrangement and horizontal continuity of fuels, have and will promote rapid fire growth. These same conditions will also hinder conventional fire suppression tactics. Critical concerns are when the chaparral dead-to-live ratio exceeds 50%, and live fuel moisture approaches 60% in late summer and early fall. Ten hour fuel moistures average from 4-7, dropping to 3 quite often.

The weather is generally warm and dry in this area during the day with a slight relative humidity recovery at night. If a critical weather pattern exists such as a Foehn North Wind, or a cold front passage, the daily diurnal weather variation will be subdued. If these critical weather patterns align with the topography, expect extreme rates of spread, especially along exposed ridges and through constricted areas. Peak summer day temperatures in Yolo County are generally 95°-105°F, cooling to 50°-60°F at night, with relative humidity ranging between 20% – 35% or less. Gradient winds are generally out of the N/NW 5-10 mph, strengthening in the afternoon with a 10-15 mph wind in the late afternoon diminishing by dark. Strong evening (2100- 0200) winds do occur occasionally in the Capay Valley with normal winds (down slope/down valley) after dark as the flow reverses. There is a Remote Automated Weather Station (Brooks RAWS) located at Brooks Fire Station. The station gives a good indication of current weather conditions. It can be accessed at <http://raws.wrh.noaa.gov/roman/>.

Elevation within the East Division ranges from 250' to 3000' with slopes ranging from 0 – 80%. There are two dominate North/South orientated ridges; Blue Ridge, running from the Yolo/Solano County line north to Rumsey Canyon and Walker Ridge, running from Hwy 20 to central Colusa County. These main ridges keep the coastal influence weather from being a factor. There are also two smaller ridges that can play a significant role to fire spread; Capay Hills and Cortina Ridge. Farmlands, ranches, rural and major roads along with other manmade features provide a network of barriers that will need to be connected to create an effective fire line. Capay Valley and Bear Valley are wide valleys that provide the opportunity for wind to be funneled even under local wind conditions; this situation will be compounded during critical weather conditions.

Most wildfires in Yolo County are quickly contained due to rapid reporting and response, but if this first effort fails, a wild fire can get very big very fast. Such fires can require extensive firebreaks and/or a weather change for containment. There have been several notable wildfires in Yolo County, particularly since the last plan update. See the Unincorporated Yolo County Community Profile for a map of historical wildfires in Yolo County.

07/04-07/12/2014 – Monticello Fire: The Monticello Fire was started by fireworks on the southeast shore of Lake Berryessa and burned 6,488 acres before it was fully contained. Five firefighters suffered minor injuries, including heat exhaustion, while fighting the blaze. Erratic wind shifts led to

extreme fire behavior during the first few days of the fire, prompting evacuation orders for 40 homes in Golden Bear Estates near Winters. No structures were lost in the fire.

07/22-08/05/2015 – Wragg Fire: The Wragg Fire was started by an idling car on State Route 128 near Lake Berryessa. The fire burned 8,051 acres and destroyed two buildings. Parts of Interstate 505 in Yolo County were closed during the fire. Mandatory evacuations were ordered for 136 homes, including Golden Bear Estates near Winters. No injuries were reported.

07/29-09/14/2015 – Rocky Fire: The Rocky Fire was started by a faulty gas-powered water heater inside an outbuilding being used for an illegal marijuana grow in Lake County. The fire burned 69,438 acres in Yolo, Lake, and Colusa Counties and destroyed 43 homes and 53 outbuildings. Several hundred people were evacuated in Lake County, but no injuries were reported. Yolo County was considering evacuating the Capay Valley if the fire crested the Blue Ridge Mountains, but it did not. The Rocky Fire eventually merged with the Jerusalem Fire (see below).

08/09-08/25/2015 – Jerusalem Fire: The Jerusalem Fire was human caused and burned 25,118 acres in Lake County on the outskirts of Yolo County before it merged with the Rocky Fire. The fire destroyed six homes and 21 outbuildings. Evacuations were ordered in Lake County, but no injuries were reported.

08/02-08/11/2016 – Cold Fire: The Cold Fire was a human caused wildfire that burned 5,371 in Yolo County near Lake Berryessa (see Figure 51). The fire destroyed two buildings and caused an estimated \$100,000 in damage. The Cold Fire burned primarily in the footprint of the Monticello Fire (see Figure 51). Mandatory evacuations were ordered for Canyon Creek Campground and Golden Bear Estates near Winters.



Figure 51: The 2016 Cold Fire
Source: CalFire - NBC Bay Area

07/06-07/11/2017 – Winters Fire: The Winters Fire was a human caused wildfire that burned roughly 2,300 acres in the Cold Fire footprint north of State Route 128. The fire did not damage any structures but one firefighter was injured and Golden Bear estates was evacuated for the fourth year in a row.

Though larger wildfires occur in the mountainous terrain of Yolo County, grass fires in the valley are more common and can cause significant damages to structures and agricultural lands:

On November 4th, 2013, a 200 acre grass fire burned near Esparto causing concern for local residents but no structures were destroyed.

On August 14th, 2014, a 369 acre grass fire burned near Winters after a car crashed into a field. No structures were threatened and no evacuations were ordered.

A grass fire that occurred in Dunningan on June 20, 2016, destroyed a home and burned property near a vineyard. A grass fire in Woodland on the same day burned several hay bales.

The most destructive wildfire in Yolo County occurred in October 2006 when 11,000 acres of rangeland burned, destroying six vehicles, and damaging three to four houses plus 15 barns and outbuildings. More than 300 animals, mainly sheep, had to be put down as a result of injuries suffered when the fire roared across their pasture. The total animal death toll is estimated to top 500. No human lives were lost.

IMPACTS

In Yolo County, there are very few homes and structures located in the mountainous areas where large wildfires typically occur. The primary impacts in these areas would be to outbuildings, campgrounds and day use areas along State Route 16 in the Cache Creek Canyon as well as along State Route 128. There are several small communities in Yolo County located in the WUI, including the Capay Valley towns of Rumsey, Guinda, Brooks, and Capay. Should a wildfire start in the Blue Ridge Mountains, these areas could potentially be impacted and evacuations may be required. Homes and businesses could be lost, and there could be damages to vineyards and other agricultural areas. The City of Winters is also located close to the WUI. With the right wind conditions, a wildfire could potentially impact residents on the western side of the city and result in damaged or destroyed structures and evacuations. The business district of the city is located well enough away from the WUI that it should not be impacted. The community of Golden Bear Estates, which has been evacuated in three previous wildfires, is located directly in the WUI. A wildfire could burn through this area and result in the loss of homes and property. A grass fire located in the valley of Yolo County could burn through agricultural land, and could affect crops as well as animals. Grass fires also have the potential to destroy homes and other structures, as has occurred previously in Yolo County. Impacts to infrastructure from a wildfire in Yolo County would consist mainly of damage to power lines. A secondary impact from wildfires is smoke, which could affect breathing of certain at risk populations throughout the County.

EXTENT

Wildfires are rated as **Critical** with between 35-50 percent of the operational area potentially affected. A wildfire of 25,000 acres could occur in Yolo County.

PROBABILITY

The probability of future occurrences in the next 100 years is **Highly Likely**: Near 100 percent chance of occurrence next year or happens every year. Wildfires have a higher chance of occurrence from May to October when the weather is warmer and drier.

VULNERABILITY

The mountainous areas of the County are most vulnerable to a large wildfire. While these areas are mostly unpopulated, the Capay Valley and the City of Winters are susceptible. Highway infrastructure, power lines, and public use facilities (including campgrounds) along State Routes 16 and 128 are vulnerable to a wildfire. Cities and communities throughout the valley portion of the County can become susceptible to large grass fires, which can burn homes and businesses. Populated highway corridors, particularly State Route 113 in Davis, are vulnerable to a grass fire.

3.3.10 DROUGHT

A drought is a deficiency in precipitation over an extended period, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people. It is a normal recurrent feature of climate that occurs in virtually all climate zones, from very wet to very dry. Drought is a temporary aberration from normal climatic conditions and can thus vary significantly from one region to another. Droughts occur slowly, over a multi-year period, and it is often not obvious or easy to quantify when a drought begins and ends. Drought is a complex issue involving many factors—it occurs when a normal amount of moisture is not available to satisfy an area's usual water-consuming activities.

There are several types of drought which can often be defined regionally based on its effects:

- Meteorological drought is usually defined by a period of below average water supply, based on the degree of dryness (in comparison to normal or average) and the duration of the dry period. Drought onset generally occurs with a meteorological drought.
- Agricultural drought occurs when there is an inadequate water supply to meet the needs of the state's crops and other agricultural operations such as livestock. Agricultural drought links various characteristics of meteorological (or hydrological) drought to agricultural impacts, focusing on precipitation shortages, soil water deficits, reduced ground water or reservoir levels needed for irrigation.
- Hydrological drought is defined as deficiencies in surface and subsurface water supplies. It is generally measured as stream flow, snowpack, and as lake, reservoir, and groundwater levels. Hydrological drought usually occurs following periods of extended precipitation shortfalls.
- Socioeconomic drought occurs when a drought impacts health, well-being, and quality of life, or when a drought starts to have an adverse economic impact on a region.

The U.S. Drought Monitor provides a general summary of current drought conditions. See Figure 52 for drought conditions in 2017 and see Figure 53 for drought conditions one year earlier in 2016.

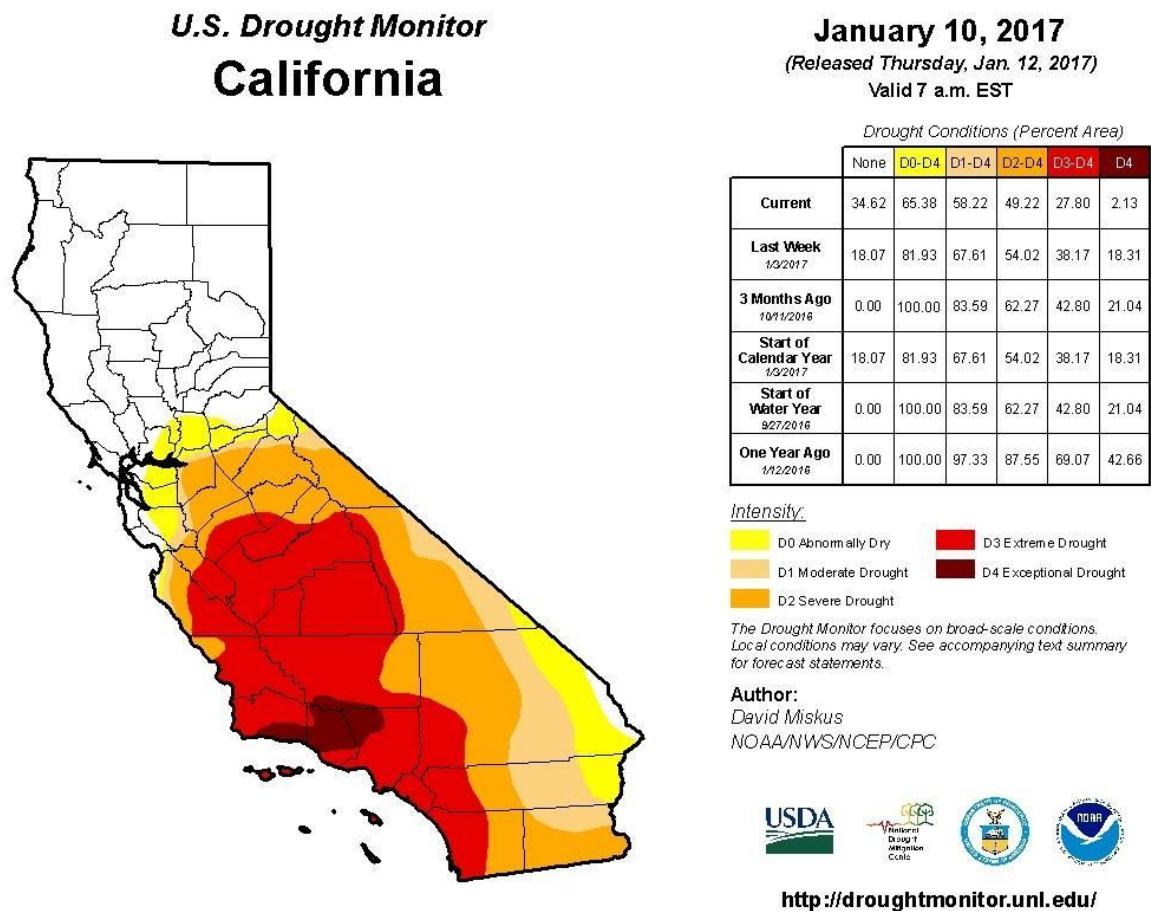


Figure 52: U.S. Drought Monitor for California (2017)

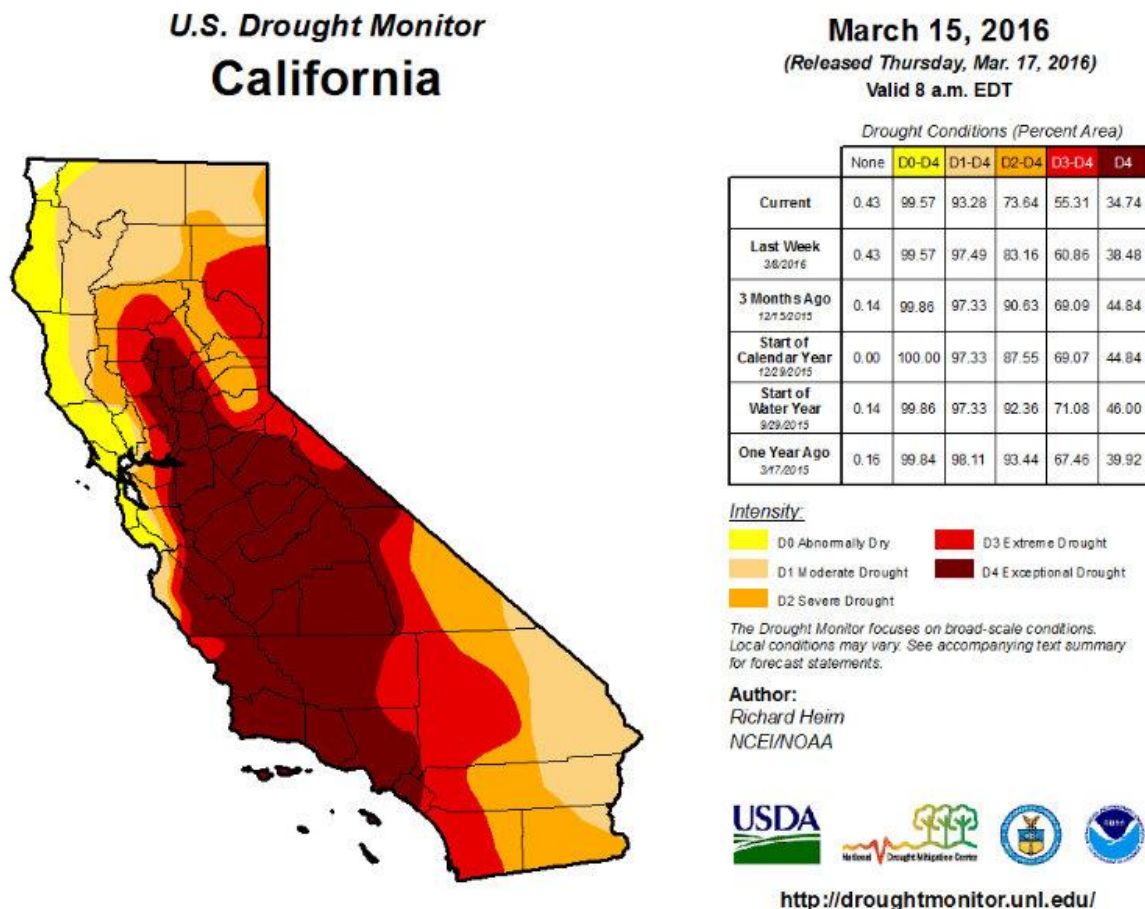


Figure 53: U.S. Drought Monitor for California (2016)

In Yolo County, the Yolo County Flood Control and Water Conservation District is the General Maintaining Agency under the Sustainable Groundwater Management Act (SGMA). Through SGMA, the groundwater user community will decide what types of rules will, or will not, be enacted to protect groundwater resources.

LOCATION AND PREVIOUS OCCURRENCES

Drought affects all areas of Yolo County, though drought conditions can be greater in the southeastern part of the county. Historically, California has experienced multiple severe droughts. According to the California Department of Water Resources (DWR), droughts exceeding three years are relatively rare in Northern California, the source of much of the State's developed water supply. The 1929-34 drought established the criteria commonly used in designing storage capacity and yield of large northern California reservoirs. The driest single year of California's measured hydrologic record was 2013. A drought emergency was declared for the state in 2014, and lifted in 2017 after a series of strong winter storms. Drought also occurred throughout California in 1976-77 and in 1987-92 causing depletion of water throughout the Yolo County Operational Area but overall impacts were minimal and Yolo County did not issue a local emergency for either event.

IMPACTS

Drought impacts are wide-reaching and may be economic, environmental, and/or societal. The most significant impacts associated with drought in Yolo County are those related to water intensive activities such as agriculture, wildfire protection, municipal usage, commerce, tourism, recreation, and wildlife preservation. Also, allocations go down during a drought which results in reduced water availability. These issues become particularly evident in shallow wells, such as the ones near Capay. Voluntary conservation measures are typically implemented during extended droughts. A reduction of electric power generation and water quality deterioration are also potential problems. Drought conditions can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding. Drought has the potential to significantly impact Yolo County's agriculture commodities, requiring changes in irrigation practices, changes in crop patterns, greater reliance on groundwater, and discontinuation of certain agricultural activities. The number of new agricultural wells in Yolo County doubled from 50 in 2013 to 100 in 2014 and remained just under 100 in 2015. The depth of groundwater in Yolo County dropped from -40 feet to -70 feet in 2015. This was the steepest drop since 1977, the previous driest period in California.

EXTENT

Drought is rated as **Critical** with between 35-50 percent of the operational area potentially affected. Drought conditions of D4 on the U.S. Drought Monitor could cover most of Yolo County, east of the Blue Ridge Mountains.

PROBABILITY

The probability of future occurrences in the next 100 years is **Likely**: Between 10 percent and 100 percent chance of occurrence next year or happens every year. Drought levels can be greatly reduced with a strong winter storm season, as had occurred in 2017.

VULNERABILITY

Agriculture throughout the County is susceptible to drought, which can cause a decrease in crop production. Crops that rely heavily on water, such as rice, are most susceptible while nut crops and vine grown fruit are least susceptible. Communities that rely on well water are susceptible to drought when groundwater levels are lower.

3.3.11 CLIMATE CHANGE AND SEA LEVEL RISE

Climate change is the distinct change in measures of weather patterns over a long period of time, ranging from decades to millions of years. More specifically, it may be a change in average weather conditions such as temperature, rainfall, snow, ocean and atmospheric circulation, or in the distribution of weather around the average. While the Earth's climate has cycled over its 4.5 billion year age, these natural cycles have taken place gradually over millennia, and the Holocene, the most recent epoch in which human civilization developed, has been characterized by a highly stable climate – until recently.

This HMP is concerned with human-induced climate change that has been rapidly warming the Earth at rates unprecedented in the last 1,000 years. Since industrialization began, the burning of fossil fuels (coal, oil, and natural gas) at escalating quantities has released vast amounts of carbon dioxide and other greenhouse gases responsible for trapping heat in the atmosphere, increasing the average

temperature of the Earth. Secondary impacts include changes in precipitation patterns, the global water cycle, melting glaciers and ice caps, and rising sea levels. According to the Intergovernmental Panel on Climate Change (IPCC), climate change will “increase the likelihood of severe, pervasive and irreversible impacts for people and ecosystems” if unchecked.

Through changes to oceanic and atmospheric circulation cycles and increasing heat, climate change affects weather systems around the world. Climate change increases the likelihood and exacerbates the severity of extreme weather – more frequent or intense storms, floods, droughts, and heat waves. Consequences for human society include loss of life and injury, damaged infrastructure, long-term health effects, loss of agricultural crops, disrupted transport and freight, and more. Climate change is not a discrete event but a long-term hazard, the effects of which communities are already experiencing.

Climate change adaptation is a key priority of the State of California. The 2013 State of California Multi- Hazard Mitigation Plan stated that climate change is already affecting California. Sea levels have risen by as much as seven inches along the California coast over the last century, increasing erosion and pressure on the state’s infrastructure, water supplies, and natural resources. The State has also seen increased average temperatures, more extreme hot days, fewer cold nights, a lengthening of the growing season, shifts in the water cycle with less winter precipitation falling as snow, and earlier runoff of both snowmelt and rainwater in the year. In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing. Data suggests that the effects of climate change have already been felt in the Sacramento region.

Anticipated climate change effects in Yolo County include temperature rise, change in precipitation patterns, impacted water resources, increased risk of wildfires, sea level rise in the Delta, and extreme weather events. There is a large scientific consensus about general categories of climate change effects and their likely consequences over continent-scale geography; however, understanding of the magnitude, timing and region-scale geographic effects and the interrelationships between them is still evolving. Adaptation measures establish a basic framework for integrating climate change risk assessment and management into current planning processes, culminating in an adaptation planning framework to guide preparation for the effects of climate change in Yolo County. Measures address agriculture, water resources, sea level rise, and health risks.

According to the Yolo County Climate Action Plan (CAP), some anticipated consequences of climate change in Yolo County include:

- Rising temperatures, leading to increased electricity use for cooling, especially in the summer. By 2020, this could result in a 1% to 3% increase in electricity demand (CEC, 2007).
- Warm-season horticultural crops (e.g., tomatoes, cucumbers, sweet corn, and peppers) could be less viable by 2050. This may prompt a shift to hot-season crops such as melon and sweet potato.

- Climate change could worsen air quality by increasing emissions, accelerating chemical processes, and raising inversion temperatures during summer periods of air stagnation.
- Sea level is expected to rise above present levels by 55 inches or more during the next 100 years. This would exacerbate flooding in already vulnerable regions of Yolo County. Combined with increased potential for winter flooding, this could threaten the structural integrity of levee and flood control systems, which would place more people and property at risk from flooding. See Figure 54 for the areas of Yolo County within one meter of the daily tidal range:

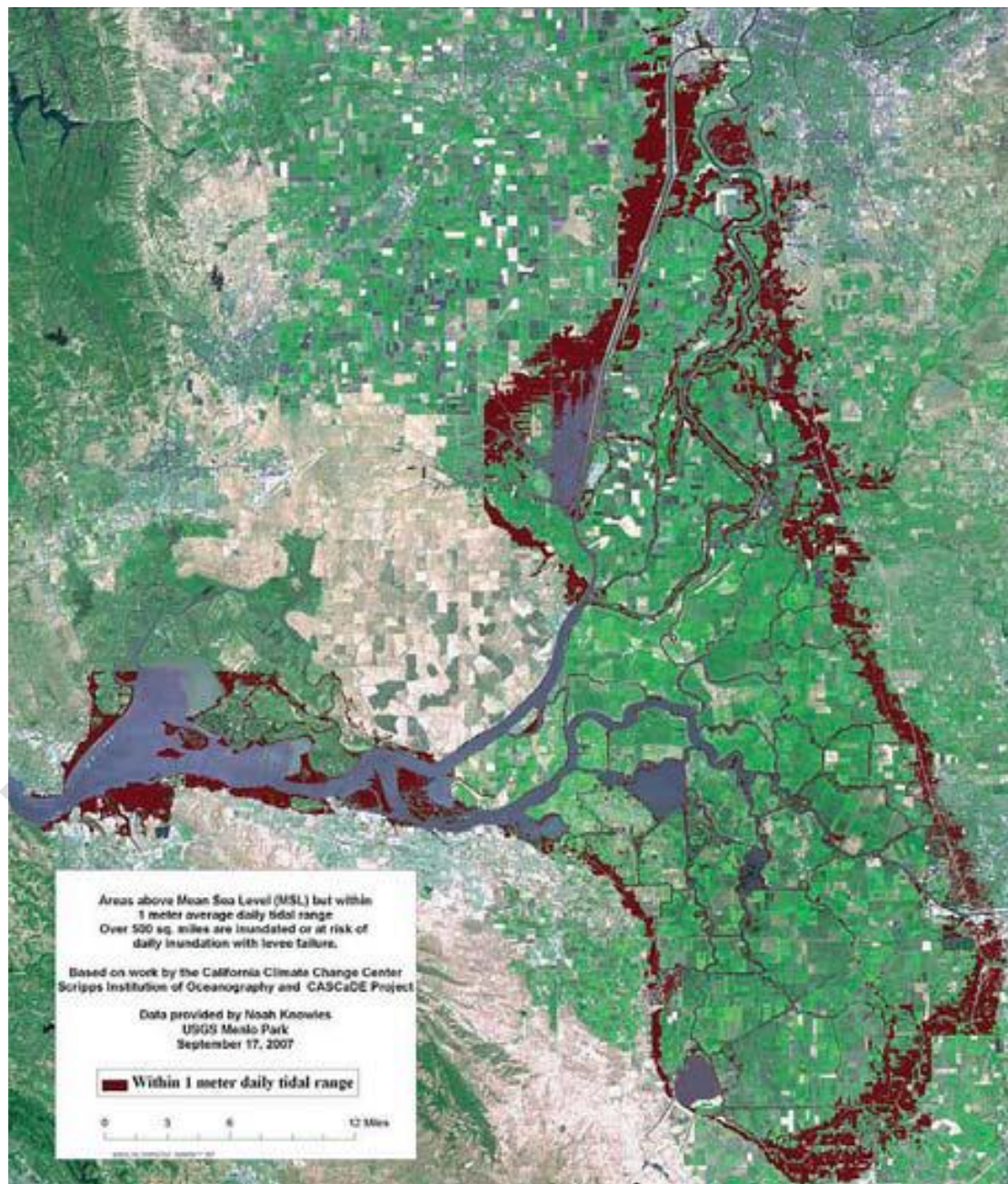


Figure 54: 1-Meter Sea Level Rise Scenario in Yolo County

Source: Yolo County General Plan - USGS

Yolo County has defined five strategies to help it reach its climate protection goals by 2030:

- **Agriculture:** Agriculture measures aim to reduce GHG emissions associated with nitrogen fertilizer application and the use of fossil fuels in field equipment and irrigation pumping. The agriculture strategy also presents measures and actions to “sequester” or store carbon in agricultural and natural landscapes.
- **Transportation and Land Use:** The transportation and land use measures implement General Plan Land Use and Circulation policies. These measures promote sustainable development patterns and investments in alternative transportation to reduce vehicle travel and associated emissions.
- **Building Energy:** Building energy measures are designed to increase energy and water efficiency in existing buildings, enhance energy and water performance in new construction, and encourage installation of building-scale renewable energy systems. This strategy also proposes a community choice aggregation program that would increase the ability for residents and businesses to purchase low and carbon-free electricity from a variety of energy providers.
- **Solid Waste and Wastewater:** This strategy presents one measure related to the reduction of solid waste emissions. The measure calls for increasing the efficiency of the methane control system at the County landfill. Supporting measures include increasing or expanding the diversion of organic wastes, and construction and demolition wastes from disposal, as well as increased recycling services in the county. The strategy also provides supporting measures that address emissions resulting from the treatment and conveyance of sewage and storm water. Methane control systems and low-impact development techniques that treat storm water on-site are the primary approaches.
- **Adaptation:** Adaptation describes how the County plans to address the potential effects of climate change on the existing and planned environment. These measures direct the County to incorporate strategies into existing plans, and to develop new documents where appropriate, to ensure that Yolo County remains responsive to the challenges created by climate change. Specific attention is given to impacts related to agriculture, water resources, sea level rise, wildfires, and public health.

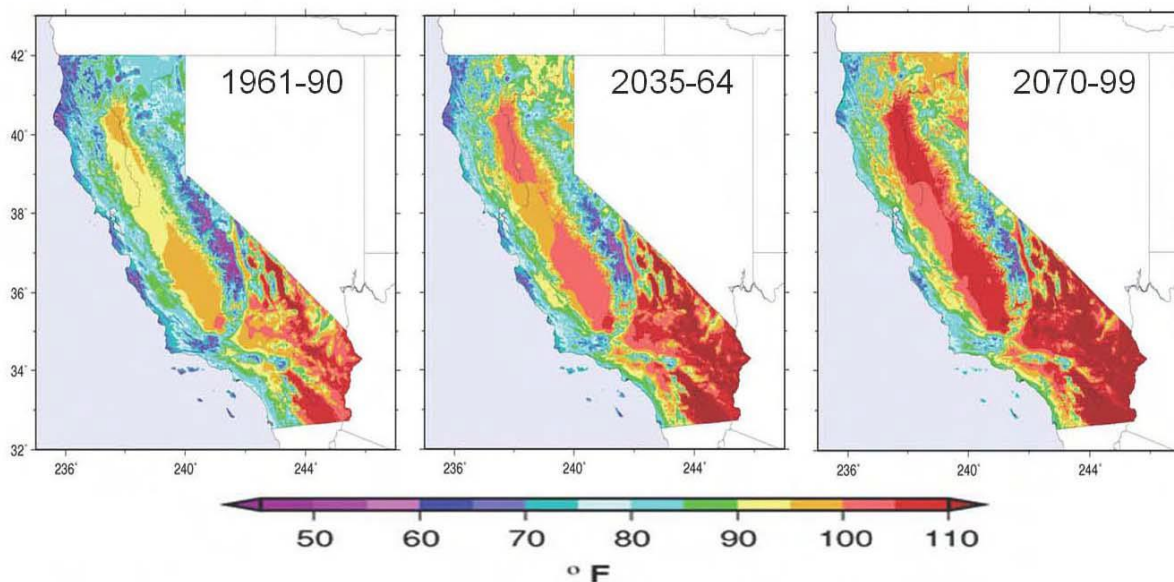
LOCATION AND PREVIOUS OCCURRENCES

Climate change has never been directly linked for any declared disasters.

Past flooding, wildfire, levee failure, and drought disasters may have been exacerbated by climate change, but it is impossible to make direct connections to individual events. Unlike earthquake and floods that occur over a finite time period, climate change is a slow onset, long term hazard, the effects of which some communities may already be already experiencing, but for which little empirical data exists. Further, given the science, it is likely that measurable effects may not be seriously experienced for years, decades, or may be avoided altogether by mitigation actions taken today.

However, the 2018 State of California Multi-Hazard Mitigation Plan states that climate change is already affecting California. Sea levels have risen by as much as seven inches along the California coast over the last century, increasing erosion and pressure on the state’s infrastructure, water supplies, and natural resources. The State has also seen increased average temperatures, more extreme hot days, fewer cold nights, a lengthening of the growing season, shifts in the water cycle with less winter precipitation falling as snow, and both snowmelt and rainwater running off sooner

in the year. In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing. This data suggests that the effects of climate change has been occurring in the Yolo County area and Greater Sacramento region. See Figure 55 for the historic and future change in average July temperatures across California.



Source: Dan Cayan et al. 2009.

Figure 55: Average July Temperatures in California

Source: Yolo County Climate Action Plan - 2009 California Climate Adaptation Strategy

IMPACTS

There are numerous effects of climate change, each of which play an interconnected role in the natural hazards that Yolo County faces.

Temperature

Increased concentrations of Greenhouse Gases in the atmosphere result in increased air, surface, and ocean temperatures. Increased temperatures, in turn, drive most other climate change effects. Most regional climate model projections predict that annual average temperatures will increase in California during the next 100 years. The California Climate Action Team projects that temperatures in California will rise between 1.8 degrees F and 5.4 degrees F by mid-century, and 3.6 degrees F and 9 degrees F by the end of the century. The exact level and timing of such a temperature increase in Yolo County is correspondingly uncertain.

Precipitation

Precipitation projections are more uncertain than those for temperature, because complex temporal variability is inherent in precipitation patterns. The International Panel on Climate Change (IPCC) predicts that increasing global surface temperatures are likely to result in changes in precipitation. Global climate models for a wide range of GHG emission scenarios also predict that average global

precipitation will increase during the 21st century as a result of climate change. However, such models are generally not well-suited for predicting regional precipitation changes given that factors affecting precipitation vary by regional geography and meteorology. Thus, significant regional differences in precipitation trends are expected. Some recent regional modeling efforts conducted for the western United States indicate that overall precipitation will increase, but considerable uncertainty remains. Projected precipitation increases are generally centered in Northern California in the winter months. However, various California climate models provide mixed results regarding changes in total annual precipitation in the State through the end of this century. One potential scenario of concern would be longer periods of drought punctuated by more intense storms during non-drought years. An IPCC review of multiple global models identifies much of California as an area where models generally did not agree on whether annual precipitation would increase or decrease; therefore, no firm conclusion on an increase or decrease can be provided, and the California climate could be either warmer-wetter or warmer-drier. Considerable uncertainties about the precise effects of climate change on California hydrology and water resources will remain until more precise and consistent information about how precipitation patterns, timing, and intensity will change is available. Given these uncertainties, regional conclusions regarding the potential effects of climate change on precipitation are speculative. Climate change may increase the number, duration, and intensity of atmospheric river events that can cause significant flooding in Yolo County. As temperatures warm, wetter storms will create more runoff. Increased precipitation and runoff in the mountainous areas of Yolo County can increase its susceptibility to landslides.

Snowpack and Runoff

By delaying runoff during the winter months when precipitation is greatest, snow accumulation in the Sierra Nevada and Cascade Range to the east and the Coast Ranges and Klamath Mountains to the west of the Sacramento River acts as a massive natural reservoir for California. Snowpack typically accumulates from November through the end of March and melts from April through July. The length and timing of each year's snowpack accumulation and melting periods vary based on both temperature and precipitation. Hydrologic models indicate that higher temperatures associated with global warming would affect the timing and magnitude of both snowmelt and runoff in California. Despite uncertainties surrounding climate change precipitation effects, there is very high confidence that higher temperatures will change both snowfall and snowmelt in many watersheds. This is particularly relevant to those areas in Yolo County that are dependent on the Sacramento River. These changes could diminish water supplies, increase flooding, and reduce summer soil moisture.

Water Supply

Several recent studies have shown that Yolo County's water supply systems are sensitive to climate change. However, experts are uncertain about what the overall effects will be on water supply. Some models indicate that drier conditions will cause decreased reservoir supplies and river flows. Other models predict wetter conditions with increased reservoir inflows and storage, and increased river flows. Increased reservoir inflows can put stress on dams, increasing the susceptibility of Yolo County to dam failure. Increased river flows can put stress on levees, increasing the susceptibility of Yolo County to levee failure. Despite this uncertainty, it is still widely accepted that changes in water supply will occur and that water yields from reservoirs are expected to be unreliable. Yolo County

must prepare for a future where competition for water resources between farming, cities, and the environment is greater than at the present time. Furthermore, climate change is also expected to result in more variable weather patterns, leading to longer and more severe droughts, which could lead to lower aquifer levels for those farmers dependent on groundwater. Additional groundwater pumping can increase the susceptibility of Yolo County to land subsidence.

Sea Level Rise

Worldwide average sea level appears to have risen about 0.4 to 0.7 feet over the past century. Various tidal gauge stations along California's coast show a similar trend. Rising average sea level over the past century has primarily been attributed to warming oceans and related thermal expansion, and the addition of water from melting land-based glaciers and polar ice. Yolo County's location (more than 50 miles inland from the mouth of the Golden Gate) precludes significant effects from coastal processes, such as wave action. However, low-lying communities in or near the Delta, such as Clarksburg and Elkhorn (with elevation as low as five feet above sea level), would be more susceptible to flooding as sea level rise continues. Rising sea levels affecting the San Francisco Bay along the Napa, Solano, and Contra Costa County borders may also worsen flooding in Yolo County and expand the county's floodplains. It is also possible that sea level rise could reduce the effectiveness of Delta and river levees within the county (reducing the levee freeboard and increasing levee stresses as a result of the rise in the base level of the adjacent water).

Heat-Related Illness

The most notable risk with heat waves is increased levels of heat stress and risk of health effects caused by extreme temperatures. This is particularly important for the elderly and infirm, as well as those with heart or respiratory problems and mental health issues. The percentage of Yolo County residents over the age of 65 was 9.6% in 2008. That number is expected to climb to 16.0% by 2030. With the prevalence of air-conditioner use during heat waves, demand for power could also increase putting more stress on power supply.

Air Quality

Throughout California, air quality is highly impaired compared to most of the nation. While predicting the effect of climate change on air quality is difficult due to complex physical, chemical, social, and policy variables, studies indicate that climate change could further worsen air quality throughout the State, including Yolo County. Higher temperatures may lead to increased ozone formation. Emissions of methane and nitrous oxide are projected to increase global ozone concentrations by 4% to 25% by 2100. If ozone levels rise to the high end of this range, attainment of ozone air quality standards could be impaired, which would have local effects in Yolo County. Highly air quality could result in increased incidence of respiratory disease and asthma.

Wildfires

Warmer temperatures cause early runoff, which leads to longer and drier summer conditions, thus resulting in wildfires of greater frequency and duration. Hotter weather increases the incidence of lightning, which is the primary cause of wildfires in the United States. In addition, the increased prevalence of dry conditions provides greater opportunities for arson, which is another source of wildfire. Much of the coast range hills of Yolo County are considered to have a moderate to high risk

of wildfire. Wildfire is a potentially significant risk to public health and safety. In addition to direct safety risks, wildfires can lead to immediate and long-term adverse public health problems due to smoke exposure. During wildfires, large populations can be exposed to a complex mixture of pollutant gases and particles, which can have both acute and chronic health effects. Smoke can irritate the eyes, harm the respiratory system, and worsen chronic heart and lung diseases, including asthma. People with existing cardiopulmonary diseases are generally at the greatest risk from smoke inhalation, with age being a complicating risk factor for the exposed population.

Extreme Weather Events

Climate change effects on weather patterns, storms, and extreme events in California are not well-understood at this time. Some models suggest increased variations in weather cycles and an increase in intense storms. Others point to increased potential for drought resulting from higher temperatures and evaporation with lower precipitation. Still others suggest that the west coast may have fewer extreme droughts than other areas while experiencing higher average annual rainfall. A separate study predicted higher risks of large storms and floods in California. These conflicting conclusions about climate variability and extreme weather events support the need for additional studies employing models that can provide region-scale predictions. Given uncertainties surrounding the type and extent of expected changes in climate variability and the speculative nature of predicting extreme weather events, effects of changing storm patterns and other extreme weather remain unclear.

Vector-borne Diseases

Temperature increases also could contribute to higher populations of mosquitoes and other disease-spreading organisms, or vectors. In California, three vector-borne diseases are of particular concern: human Hantavirus cardiopulmonary syndrome, Lyme disease, and West Nile virus. Disease transmission, however, depends on additional factors such as the interaction of humidity and rainfall, the maturation cycles of both the vector and the pathogen, and human vector control activities. Yolo County's current low level of vector-borne disease is largely due to vector control measures. These measures would likely need to be enhanced and expanded, if vectors changed or risk of disease increased.

See the Yolo County Climate Action Plan for more information on specific climate change effects for Yolo County.

EXTENT

Climate change is rated as **Catastrophic** with over 50 percent of the operational area potentially affected. Climate change has the potential to increase hazard risk in all areas of the County.

PROBABILITY

Climate change is virtually certain to continue without immediate and effective global action. According to NASA, 2017 is on track to be the hottest year on record, and 15 of the 17 hottest years ever have occurred since 2000. Without significant global action to reduce greenhouse gas emissions, the Intergovernmental Panel on Climate Change (IPCC) concludes in its Fifth Assessment Synthesis Report (2014) that average global temperatures is likely to exceed 1.5 C by the end of the 21st century, with consequences for people, assets, economies and ecosystems, including risks from heat

stress, storms and extreme precipitation, inland and coastal flooding, landslides, air pollution, drought, water scarcity, sea level rise and storm surges. The probability of future occurrences in the next 100 years is **Highly Likely**: Between 10 percent and 100 percent chance of occurrence next year or happens every year.

VULNERABILITY

The susceptibility of Yolo County to climate change is discussed throughout the profile above.

3.4 HAZARD RISK ASSESSMENT – TECHNOLOGICAL AND HUMAN-CAUSED HAZARDS

3.4.1 AGRICULTURAL PESTS AND DISEASES

California is the top agriculture producing state in the nation, and Yolo County is a major contributor. Over 85 percent of the land in Yolo County is used for agriculture. Significant crops include tomatoes, wine grapes, almonds, walnuts, rice, hay/alfalfa, and seed crops.

Invasive and/or non-native plant species include:

Yellow Starthistle: Yellow starthistle is a long-lived winter annual, and occasionally, a biennial broadleaf plant. It is highly competitive and often develops impenetrable stands, displacing desirable vegetation. It is common in the Sacramento Valley, including in Yolo County. In addition to being a serious rangeland weed, yellow starthistle is sometimes problematic in grain fields where it can contaminate grain harvest, lowering grain value and quality. The plant also contains an unidentified compound that can cause a nervous system disorder in horses. A positive quality of yellow starthistle is that bees produce flavorful, high quality honey when they forage on yellow starthistle.

Japanese Dodder: Dodder, *Cuscuta* species, is a parasitic annual plant that infests many crops, ornamentals, native plants, and weeds. Japanese dodder, *C. japonica*, which is native to Asia, recently has been found in California attacking and covering ornamental shrubs and fruit trees, with a preference toward citrus. However, Japanese dodder also can parasitize annuals, perennials, and native trees such as oaks and willows. Impact varies from moderate to severe reductions of plant growth and, in some cases, complete loss of vigor and death. The severity of an infestation depends on the growth stage of the host plant at the time of initial dodder attachment. Japanese dodder can cover and kill most large shrubs and small trees. The weakened state of infected plants also predisposes them to diseases and insect and nematode invasions. Japanese dodder is currently under an eradication program in California and has spread to more than a dozen counties including Yolo County, where it has been found in West Sacramento and Clarksburg. See Figure 56 for a picture of Japanese Dodder on a tomato plant.



Figure 56: Japanese Dodder on a Tomato Plant

Source: UC Davis

Effective management requires control of the current population, prevention of dodder seed production, and suppression of new seedlings in subsequent years.

Branched Broomrape: Branched broomrape is an annual and sometimes perennial parasitic plant that has no chlorophyll and lacks conspicuous leaves. It attaches to plant roots and is visible above ground only when flowering and inhabits ornamental and vegetable crop fields and margins, especially tomato fields. Branched broomrape has been associated with tomato plant die off in Yolo County in 2018. It can be treated with chemicals.

Invasive and/or non-native creatures include:

Walnut Twig Beetle: The Walnut twig beetle (Figure 57) *Pityophthorus juglandis* is a tiny bark beetle that spreads a fungus *Geosmithia morbida*, also known as Thousand cankers disease (TCD). The disease can kill both black and English walnut trees. In California, native black walnuts (*Juglans hindsii*) infected with TCD were first confirmed in Yolo County in June 2008. According to the California Department of Food and Agriculture, the 2009 value of the walnut industry totaled \$738 million. Management includes installing Walnut Twig Beetle traps as well as applying insecticides and fungicides on black walnut trees.



Figure 57: Walnut Twig Beetle (expanded size for reference)

California Ground Squirrel: Ground squirrels damage many food-bearing and ornamental plants. Particularly vulnerable plants are grains as well as nut and fruit trees such as almond, apple, apricot,

orange, peach, pistachio, prune, and walnut. Ground squirrels will enter gardens and devour vegetables in the seedling stage. They can damage young shrubs, vines, and trees by gnawing bark, girdling trunks (the process of completely removing a strip of bark from a tree's outer circumference), eating twigs and leaves, and burrowing around roots. Ground squirrels can also burrow into levees, destabilizing the structure of the levee and increasing the threat of levee failure. Numerous ground squirrel burrows have been observed on the CSA #6 levee. Baiting ground squirrels with treated grain is effective in summer and fall, because squirrels primarily feed on seeds during this period. Fumigation is most effective in spring when moist soil helps seal gasses in the burrow system. Fumigating at this time also is more effective, because squirrels die before they can reproduce.

Additional pests and diseases of common crops in Yolo County include²:

Pests and disorders of Almonds

Invertebrates • Ants • Armored scales • San Jose scale • Borers • American plum borer • Pacific flatheaded borer • Peachtree borer • Peach twig borer • Shothole borer • Leafhoppers • Leafrollers • Mites • Brown mite • European red mite • Spider mite • Navel orangeworm • Nematodes • Oriental fruit moth • Redhumped caterpillars • Soft scales • Tent caterpillars	Diseases • Armillaria root rot (Oak root fungus) • Bacterial canker • Bacterial leaf scorch (similar to Oleander leaf scorch) • Brown rot • Crown gall • Phytophthora root and crown rot • Scab • Shot hole disease (Coryneum blight) • Verticillium wilt Environmental disorders • Frost injury • Poor or incomplete pollination • Sunburn • Wind injury Vertebrates Weeds
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² From the University of California Statewide Integrated Pest Management Program

Pests and disorders of walnuts

Invasive Pests

- [Thousand cankers disease](#)
- Field ID guide: [Walnut twig beetle and thousand cankers disease](#) (560 KB, PDF)

For more information on these pests, see [Exotic and Invasive Pests](#).

Invertebrates

- [Aphids](#)
 - Dusky-veined walnut aphid
 - Walnut aphid
- [Armored scales](#)
 - San Jose scale
 - Walnut scale
- Bark beetles and borers
 - [Pacific flatheaded borer](#)
 - [Shothole borer](#)
 - [Twig beetles](#)
- [Carpenterworm](#)
- [Codling moth](#)
- [Fall webworm](#)
- [Fruittree leafroller](#)
- [Lace bugs](#)
- [Navel orangeworm](#)
- [Nematodes](#)
- Mites
 - [European red mite](#)
 - [Spider mites](#)
- [Redhumped caterpillar](#)
- [Soft scales](#)
 - European fruit lecanium
 - Frosted scale
- [Tent caterpillars](#)
- [Walnut husk fly](#)

Diseases

- [Anthracnose](#)
- [Armillaria root rot](#) (Oak root fungus)
- [Blackline](#)
- [Branch wilt](#)
- [Crown gall](#)
- [Deep bark canker](#)
- [Phytophthora root and crown rot](#)
- [Shallow bark canker](#)
- [Walnut blight](#)
- [Wood decay](#)

Environmental disorders

- [Frost damage](#)
- [Molds](#)
- [Overwatering](#)
- [Sunburn](#)
- [Wind injury](#)

Parasitic plants

- [Broadleaf mistletoe](#)

Vertebrates

Weeds

Pests and disorders of Grapes

Invertebrates

- [Aphids](#)
- [Black vine weevil](#)
- [Boxelder bug](#)
- [Branch and twig borer](#)
- [Cutworms](#)
- [Glassy-winged sharpshooter](#)
- [Grape bud beetle](#)
- [Grape leafroller](#)
- [Grape phylloxera](#)
- [Grasshoppers](#)
- [Hoplia beetle](#)
- [Katydid](#)
- [Leafhoppers](#)
- [Mealybugs](#)
 - [Gill's mealybug](#)
 - [Grape mealybug](#)
- [Mites](#)
 - [Grape erineum mite](#)
 - [Spider mites](#)
- [Nematodes](#)
- [Omnivorous leafroller](#)
- [Saltmarsh caterpillar](#)
- [Scales](#)
- [Sphinx moths](#)
- [Thrips](#)

Invertebrates (continued)

- [Western grapeleaf skeletonizer](#)
- [Whiteflies](#)

Diseases

- [Armillaria root rot](#)
- [Bunch rots](#)
- [Crown gall](#)
- [Downy mildew](#)
- [Eutypa dieback](#)
- [Measles](#)
- [Phomopsis cane and leaf spot](#)
- [Phytophthora crown and root rot](#)
- [Pierce's disease](#)
- [Powdery mildew](#)
- [Viruses](#)

Environmental disorders

- [Herbicide injury](#)

Vertebrates

Weeds

Pests and disorders of Tomatoes

Invertebrates • Aphids • Armyworms • Buffalo treehopper • Cutworms • Flea beetles • Hornworms • Leaffooted bug • Leafminers • Loopers • Lygus bugs • Nematodes • Potato tuberworm • Snails/slugs • Stink bugs • Thrips • Tomato fruitworm • Tomato pinworm • Tomato russet mite • Vegetable weevil • Whiteflies • Wireworms	Diseases • Black mold • Curly top virus • Damping off • Early blight • Fusarium wilt • Late blight • Phytophthora root rot • Powdery mildew • Tobacco mosaic virus • Tomato spotted wilt virus • Verticillium wilt • White mold Environmental disorders • Common environmental disorders • Blossom end rot • Catfacing • Fruit cracks • Sunscald • Tomato leaf roll Vertebrates Weeds
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Diseases that can affect rice include the aggregate sheath spot of rice, bakanae, kernel smut, rice blast, seed rot, and stem rot. Creatures that can affect rice include the armyworm, aster leafhopper, crayfish, rice leafminer, rice seed midge, rice water weevil, and tadpole shrimp.

Agricultural pests and diseases can occur on crops anywhere in Yolo County. Pest detection in Yolo County involves preventing the introduction and spread of injurious pests not known to occur in the county through a systematic search for such pests. This is accomplished by deploying insect traps, making visual surveys, inspecting selected hosts, and informing and educating the public.

3.4.2 EPIDEMIC/PANDEMIC

Epidemic refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area. Epidemics occur when an agent and susceptible hosts are present in adequate numbers, and the agent can be effectively conveyed from a source to the susceptible hosts. More specifically, an epidemic may result from:

- A recent increase in amount or virulence of the agent,
- The recent introduction of the agent into a setting where it has not been before,
- An enhanced mode of transmission so that more susceptible persons are exposed,
- A change in the susceptibility of the host response to the agent, and/or
- Factors that increase host exposure or involve introduction through new portals of entry.

The previous description of epidemics presumes only infectious agents, but non-infectious diseases such as diabetes and obesity exist in epidemic proportion in the U.S.

Epidemics can be classified according to their manner of spread through a population:

- Common-source
- Point
- Continuous
- Intermittent
- Propagated
- Mixed
- Other

A common-source outbreak is one in which a group of persons are all exposed to an infectious agent or a toxin from the same source. Some epidemics have features of both common-source epidemics and propagated epidemics. Epidemics can occur anywhere in Yolo County and can affect the entire County. Epidemics that have occurred in Yolo County include the norovirus and pertussis (whooping cough). H1N1 (Swine Flu) is a person to person epidemic that has also occurred in Yolo County.

The norovirus is a gastrointestinal virus that is highly contagious and spreads by touching contaminated surfaces, coming into close contact with an infected person, or by consuming contaminated foods. Norovirus infection is characterized by nausea, vomiting, watery diarrhea, abdominal pain, and in some cases, loss of taste. Protection measures against the norovirus include good hygiene and quarantine. In the spring of 2017, more than 950 students and staff in Yolo County were sickened by a norovirus outbreak. Over 434 cases occurred in the Woodland Joint Unified School District and over 181 occurred in the Davis Joint Unified School District. The Esparto Unified School District had 49 cases, the Winters Joint Unified School District had 39 cases, and U.C. Davis had 32 cases.

Pertussis, also known as whooping cough, is a bacterial diseases can cause extreme coughing. It can lead to broken ribs and vomiting and can cause hospitalization. Pertussis affects the young and elderly to a greater degree, and they should be vaccinated for protection. Pertussis cases occur annually in Yolo County, though is often cyclical and peaks every three to five years. Epidemics occurred in 2010 and 2014. In 2014, pertussis became a state wide epidemic and over 32 Yolo County residents were diagnosed with the disease. In 2017, a high number of pertussis cases were reported in neighboring Napa County.

Several other viral and bacterial diseases have the potential to cause epidemics.

Zika virus is spread through the bite of an infected *Aedes* species mosquito. The most common Zika symptoms are fever, rash, headache, joint pain, red eyes, and muscle pain. Zika can be passed from a pregnant woman to her fetus. Infection during pregnancy can cause certain birth defects. There is currently no vaccine or medicine for Zika. Prevention includes avoiding travel to areas where Zika is actively spreading, including areas of South and Central America. Though no Zika infected mosquitos have been found in Yolo County, two cases of patients having the virus in the county were reported in 2016. They were both travel related. The *Aedes* mosquito is not native to California but they have been detected in several California counties. See Figure 58 for a picture of an *Aedes* mosquito.



Figure 58: *Aedes* Mosquito (expanded size for reference)

Botulism is a rare and potentially fatal bacterial illness that causes muscle weakness and trouble speaking. Prevention is primarily by proper food preparation. In the spring of 2017, several cases of botulism were reported in the Sacramento area due to infected nacho cheese sauce at a gas station and one person died.

Measles is a highly contagious airborne virus that cause fever and inflammation. It can spread through the coughs and sneezes of those infected. In 2014, a measles outbreak began in Southern California but did not spread to Yolo County. An outbreak of measles has also been observed on the U.C. Davis campus in the spring of 2014. Prevention includes vaccination.

Numerous other diseases including malaria, dengue fever, Legionnaires' disease, and typhoid have been found in Yolo County patients but in small numbers that have not led to epidemics. Pandemic refers to an epidemic that has spread over several countries or continents, usually affecting a large number of people. Several diseases including smallpox, cholera, and scarlet fever have historically caused pandemics across the world but have since been eradicated or significantly reduced in the United States due to the discovery of vaccinations and through improved nutrition and sanitary systems.

3.4.3 HAZMAT INCIDENTS

Hazardous materials incidents that require emergency response include industrial and residential chemical spills, fuel spills resulting from vehicle accidents, chemical leaks due to natural disasters such as earthquakes and floods, terrorist acts, bomb threats, abandoned waste, illegal drug labs, and radiological releases. Responding to large-scale outbreaks caused by various agents will require the rapid mobilization of public health workers, emergency responders, and private health-care providers. Large-scale outbreaks will also require rapid procurement and distribution of large quantities of drugs and vaccines. Most incidents in Yolo County are small, often resulting from leaks or spills from vehicles.

RADIOLOGICAL INCIDENTS

A radiological incident is a hazardous materials accident that involves the release of radiation, with significant consequences to people and/or the environment. While an actual release of radioactive material is extremely unlikely and the immediate threat to life extremely low, vulnerability to a nuclear plant disaster could consist of long-range health effects with temporary and permanent displacement of population from affected areas. The potential danger from an accident at a nuclear power plant is exposure to radiation. This exposure could come from the release of radioactive material from the plant into the environment, usually characterized by a plume (cloudlike) formation. The area the radioactive release may affect is determined by the amount released from the plant, wind direction and speed and weather conditions (e.g., rain), which would quickly drive the radioactive material into the ground, hence causing increased deposition of radionuclides.

The only operating nuclear power plant in California is the Diablo Canyon Nuclear Power Plant in San Luis Obispo County. Over 300 miles away, Yolo County is well outside the Emergency Planning Zone and the Ingestion Pathway Zone (50 miles) for Diablo Canyon. The decommissioned Rancho Seco Nuclear Generating Station in Sacramento closed in 1989. The Sacramento Municipal Utility District is continuing to work on the decommissioning process at Rancho Seco, as over 22 metric tons of uranium are still stored on site.

The largest radiological threat to Yolo County would be from a terrorist incident, or from an act of war (see Figure 59). Such an event would likely impact the entire County depending on where it occurred. The threat of these situations occurring in Yolo County is relatively small, though Yolo County lies close to large population centers in the Sacramento and San Francisco Bay areas where a terrorist attack or an act of war could occur (see terrorism profile). Any radiological material being shipped through the County is primarily secured in small enough quantities where a release would not cause significant impacts. It is highly unlikely that a transportation accident involving radiation would result in any radiation-related injuries or illnesses. To date, there have been no radiological incidents recorded in Yolo County.



Figure 59: Radiological Threat to Yolo County – Little Rocket Man

Source: BBC

Ensuring that buildings have the capacity to reduce ventilation in the event of a radiological incident can help protect people when they have to shelter in place. Having a stockpile of treatments including potassium iodide can help save lives by preventing radioactive iodine from entering the body. Yolo County would be able to acquire treatments from private vendors if needed.

CHEMICAL INCIDENTS

A chemical incident is a hazardous materials accident that involves the release of one or more chemicals. Chemical agents are compounds with unique chemical properties that can produce lethal or damaging effects in humans, animals, and plants. Chemical agents can exist as solids, liquids, or gases, depending on temperature and pressure. Most chemical agents are liquid and can be introduced into an unprotected population relatively easily using aerosol generators, explosive devices, breaking containers, or other forms of covert dissemination. Dispersed as an aerosol or vapor, chemical agents have their greatest potential for inflicting mass casualties. There are two categories of chemicals: lethal and incapacitating. The lethal chemicals are subdivided into industrial and warfare. Industrial chemicals are used extensively throughout the nation on a daily basis. Lethal industrial chemicals are listed as Toxic Industrial Compounds (TICs). Of concern is the use of TICs as a weapon (e.g., derailment of a chlorine tanker car), especially in the urban environment. Chemical agents can have an immediate effect (a few seconds to a few minutes) or a delayed effect (several hours to several days). Although potentially lethal, chemical agents are difficult to deliver in lethal concentrations. Outdoors, the agents often dissipate rapidly. Chemical agents are also difficult to produce. There are six types of agents:

- Choking/lung-damaging (pulmonary) agents such as chlorine and phosgene
- Blood agents such as cyanide
- Vesicants or blister agents such as mustard
- Nerve agents such as GA (tabun), GB (sarin), GD (soman), GF (cyclohexyl sarin), and VX (phosphonothioic acid)
- Incapacitating agents such as BZ (3-quinulidinyle benzilate)
- Riot-control agents similar to Mace

Chemical manufacturers are one source of hazardous materials, but there are many others, including service stations, hospitals, and hazardous materials waste sites. While chemical accidents may occur

whenever toxic materials are stored, transported, or used, the most severe accidents are industrial accidents involving major chemical manufacturing and storage facilities. The use of organophosphates can also present health hazards to farm workers, who can become severely sickened due to exposure.

Major chemical incidents have the potential to occur in any of the heavy industrial areas of Yolo County, including in the cities of Woodland and West Sacramento. The potential also exists for a chemical incident by rail as well as by vehicle on any one of the numerous highways and roadways in Yolo County. Though there have been no major chemical incidents in Yolo County, there have been several incidents in and around the area:

7/14/1991: A train accident in Northern California caused a single chemical tank car to fall into the Sacramento River, spilling 19,000 gallons of the herbicide metam sodium. The spill destroyed all life in the Sacramento River along a 41 mile stretch into Shasta Lake (see Figure 60). The toxic chemical cloud sent area residents to hospitals.



Figure 60: 1991 Cantara Chemical Spill – Sacramento River
Source: California Department of Fish and Wildlife

12/4/2014: A minor chemical spill occurred at Aerojet Rocketdyne in Rancho Cordova when a drum was punctured by a forklift. Seven employees were sent to area hospitals.

9/9/2015: About a thousand gallons of sodium hydroxide spilled at Aramark Uniform in Sacramento. Employees were evacuated out of the building and nobody was injured.

10/28/2015: A small chemical spill occurred at UC Davis when a container of acrolein was knocked over. One student who was exposed at the spill was sent to the Student Health Center.

5/11/2016: A small chemical spill occurred at Sacramento State University. Five employees were exposed and experienced varying health issues.

7/27/2016: A small chemical leak occurred at Aerojet Rocketdyne in Rancho Cordova, where a cylinder was found to be leaking anhydrous hydrogen bromide. There were no reported injuries.

In 2009, the television show Mythbusters detonated 500 pounds of ammonium nitrate in Esparto as part of an experiment. The subsequent explosion shattered several windows in town.

Mitigation of a chemical incident includes the development of emergency plans to prepare for and respond to chemical emergencies. It is important to notify the public of actions they should take in the event of a release, including how to shelter in place.

BIOLOGICAL INCIDENTS

A biological incident is a release of infectious agents that present a risk of death, injury, and/or illness. Biological agents pose a serious threat because of their accessible nature and the rapid manner in which they spread. These agents are disseminated by the use of aerosols, contaminated food or water supplies, direct skin contact, or injection. Several biological agents can be adapted for use as weapons by terrorists. These agents include anthrax (sometimes found in sheep and cattle), tularemia (rabbit fever), cholera, the plague (sometimes found in prairie dog colonies), and botulism (found in improperly canned food). A biological incident will most likely be first recognized in the hospital emergency room, medical examiner's office, or within the public health community long after the terrorist attack. The consequences of such an attack may present communities with an unprecedented requirement to provide mass protective treatment to exposed populations, mass patient care, mass fatality management, and environmental health cleanup procedures and plans. Biological agents are organisms or toxins that can kill or incapacitate people, livestock, and crops. The three basic groups of biological agents that would likely be used as weapons are bacteria, viruses, and toxins:

- Bacteria are small free-living organisms that reproduce by simple division and are easy to grow. The diseases they produce often respond to treatment with antibiotics.
- Viruses are organisms that require living cells in which to reproduce and are intimately dependent upon the body they infect. Viruses produce diseases that generally do not respond to antibiotics; however, antiviral drugs are sometimes effective.
- Toxins are poisonous substances found in, and extracted from, living plants, animals, or microorganisms; some toxins can be produced or altered by chemical means. Some toxins can be treated with specific antitoxins and selected drugs.

Most biological agents are difficult to grow and maintain. Many break down quickly when exposed to sunlight and other environmental factors, while others such as anthrax spores are very long lived. They can be dispersed by spraying them in the air, or by infecting animals or humans, as well through food and water contamination.

- Aerosols — Biological agents are dispersed into the air as an aerosol that may drift for miles. Inhaling the agent may cause disease in people or animals.

- Animals — Some diseases are spread by insects and animals, such as fleas, mice, flies, and mosquitoes. Deliberately spreading diseases through livestock is also referred to as agroterrorism.
- Food and water contamination or Agroterrorism— Some pathogenic organisms and toxins may persist in food and water supplies. Most microbes can be killed, and toxins deactivated, by cooking food and boiling water.

Person-to-person spread of a few infectious agents is also possible. Humans have been the source of infection for smallpox, plague, and the Lassa viruses. The Centers for Disease Control (CDC) has classified biological agents as one of three priority categories for initial public health preparedness efforts: A, B, or C (see Figure 61). Agents in Category A have the greatest potential for adverse public health impact with mass casualties, and most require broad-based public health preparedness efforts (e.g., improved surveillance and laboratory diagnosis and stockpiling of specific medications). Category A agents also have a moderate to high potential for large-scale dissemination or a heightened general public awareness that could cause mass public fear and civil disruption. Most Category B agents also have some potential for large-scale dissemination with resultant illness, but generally cause less illness and death, and, therefore, would be expected to have lower medical and public health impacts. These agents also have lower general public awareness than Category A agents and require fewer special public health preparedness efforts. Agents in this category require some improvement in public health and medical awareness, surveillance, or laboratory diagnostic capabilities, but present limited additional requirements for stockpiled therapeutics beyond those identified for Category A agents. Biological agents that have undergone some development for widespread dissemination but do not otherwise meet the criteria for Category A, as well as several biological agents of concern for food and water safety, are included in this category. Biological agents that are currently not believed to present a high bioterrorism risk to public health, but that could emerge as future threats (as scientific understanding of these agents improves) were placed in Category C.

Biological Agent(s)	Disease
Category A	
Variola major	Smallpox
Bacillus anthracis	Anthrax
Yersinia pestis	Plague
Clostridium botulinum (botulinum toxins)	Botulism
Francisella tularensis	Tularemia
Filoviruses and Arenaviruses (e.g., Ebola virus, Lassa virus)	Viral hemorrhagic fevers
Category B	
Coxiella burnetii	Q fever
Brucella spp.	Brucellosis
Burkholderia mallei	Glanders
Burkholderia pseudomallei	Melioidosis
Alphaviruses	Encephalitis
Rickettsia prowazekii	Typhus fever
Toxins (e.g., Ricin)	Toxic syndromes
Chlamydia psittaci	Psittacosis
Food safety threats (e.g., Salmonella spp.)	
Water safety threats (e.g., Vibrio cholerae)	
Category C	
Emerging threat agents (e.g., Nipah virus, hantavirus)	

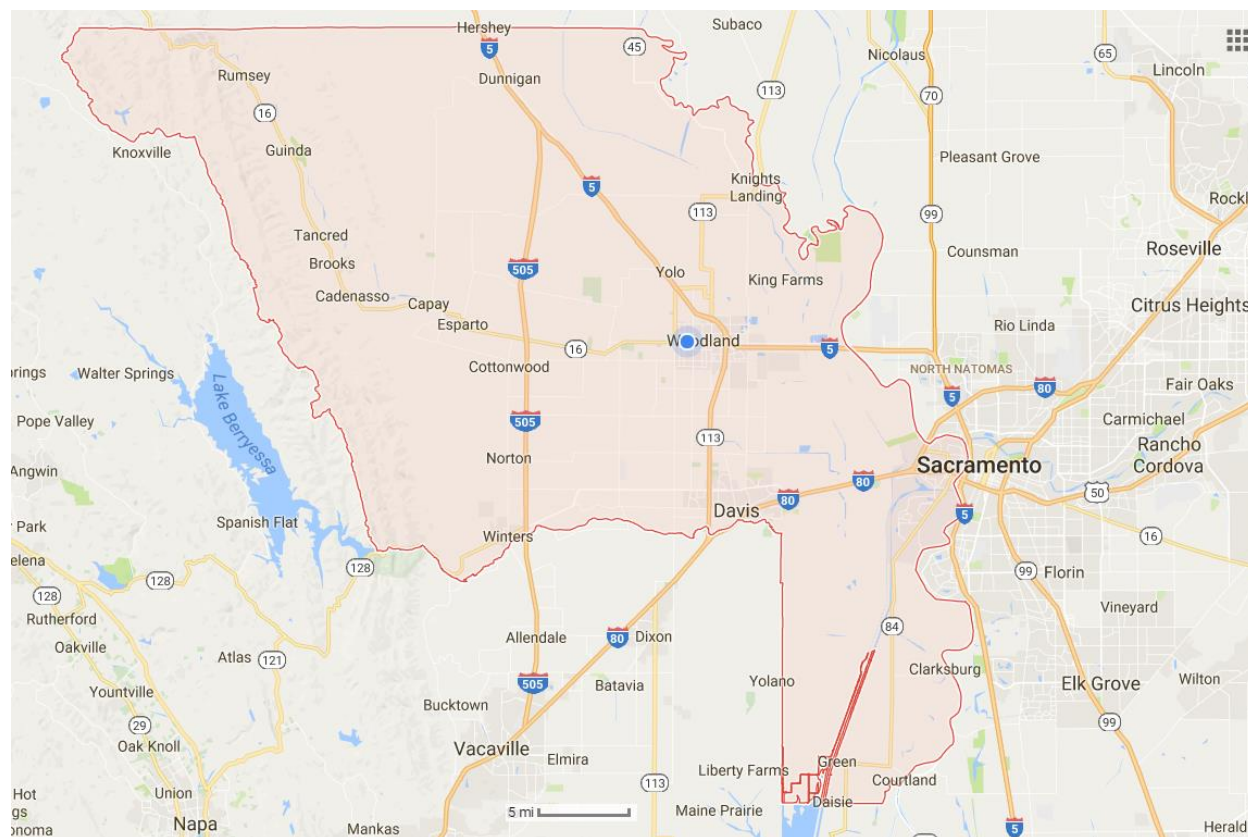
Figure 61: CDC Biological Agents Classification
Source: Center for Disease Control

There have been no recorded biological incidents in and around Yolo County. Mitigation of a biological incident would require detailed response planning, including procedures for decontamination. Public health can play a vital role in detecting a potential biological incident.

3.4.4 TRANSPORTATION ACCIDENTS

VEHICLE ACCIDENT

A vehicle accident occurs when a motor vehicle collides with another vehicle or object. Vehicle collisions can result in mass fatalities and property damage. A number of factors contribute to the risk of a collision including vehicle design, speed of operation, road design, road environment, driver skill, and impairment due to drugs or alcohol. There are numerous different types of vehicle collisions; of primary concern are the ones that result in a mass fatality and/or a hazmat incident. These incidents can occur due to a single vehicle accident, such as with a tour bus or a truck carrying hazardous materials, or due to a multi-vehicle accident. Multi-vehicle collisions generally occur on high capacity and high speed routes such as freeways. There are three interstates and several major state highways that traverse Yolo County (see Figure 62).

**Figure 62: Major Highways in Yolo County**

Source: Google Maps

Multi-vehicle accidents usually occur in low-visibility conditions. Black ice or other road hazards can cause multi-vehicle accidents in good visibility. On roads with high traffic volume, a chain-reaction crash can occur when motorists are unable to stop. Determining the cause of multi-vehicle accidents is often difficult. Multi-vehicle accidents are particularly deadly due to the heightened risk of injury and chances of a fire occurring. Multi-vehicle accidents can also overwhelm local responding units, making rescue more difficult. Accidents in remote areas can hamper the ability to receive medical help.

A mass fatality and/or hazmat incident could occur on any one of Yolo County's major highways including all of the interstates as well as State Highways 113, 16, and 84. In Yolo County, fog can play a significant role causing a multi-vehicle accident (see fog profile). Yolo County is not likely to experience significant snowfall that would result in a major vehicle incident. In 1984, a chain-reaction crash on Interstate 80 due to fog caused a 70 vehicle pileup in West Sacramento. Additional accidents have happened around the Yolo County area.

12/11/1997: A 20 vehicle pileup due to fog on Interstate 5 in Sacramento County resulted in four people killed and 26 injured (see Figure 63).



Figure 63: 1997 Major Vehicle Accident in Sacramento
Source: Associated Press – San Francisco Chronicle

11/5/2007: A 108 vehicle pileup due to fog on Highway 99 in Fresno County resulted in two people killed and dozens injured.

4/10/2014: Nine people were killed when a FedEx semi-truck collided with a tour bus on Interstate 5 in Glenn County, resulting in nine deaths.

Mitigation of a major vehicle accident includes working with state and local transportation agencies to ensure that all roads compatible for vehicular use are regularly maintained with proper signage. Public outreach can be used to inform motorists of different driving conditions and how they can maintain safe passage of travel. Responding agencies should have emergency plans for effectively responding to a major vehicle accident.

TRAIN ACCIDENT

A train accident is a violent and destructive crash involving a train. There are several different kinds of train accidents that can occur. A train can derail due to defects in or the compromising of track infrastructure, human error, mechanical or maintenance issues on the train itself, and/or from hitting another object such as a vehicle or another train. A train can also hit another object without derailing. Train accidents can be classified in terms of both cause and effect:

Classification of Train Accidents by Cause

Engineer/Conductor Error

- Passing signals at danger
- Excessive speed

- Mishandling of the engine
- Failure to check brakes and safety systems
- Failure to stop at required positions

Controller Error

- Allowing two trains into the same occupied block section

Other Railway Personnel Error (shunters, porters, maintenance workers)

- Accidental track obstruction
- Improper maintenance activities (leading to warped rails, damaged ties, faulty signals, etc.)

Mechanical Failure of Rolling Stock (Train Cars)

- Poor maintenance
- Poor design
- Undetected damage
- Overloading of or improperly secured freight
- Combustion fire

Civil Engineering Failure

- Track faults
- Bridge and tunnel collapses
- Poor track or junction layout

Non-Railway Personnel Error

- Accidental track obstruction

Deliberate Acts

- Deliberate track obstruction
- Intentional damage to track infrastructure or the train itself
- Level crossing misuse

Natural Causes

- Track obstruction due to landslides, avalanches, floods, or felled trees
- Fog or snow that can obscure signals or the position of a train
- Wet leaves

Classification of Train Accidents by Effect:

The primary effects of a train accident are:

Collision (any of which can cause a derailment)

- Head-on collision
- Rear collision
- Slanting collision
- Collision with buffer stops
- Collision with obstructions of the track

Derailment

- Plain track
- Curve

- Junction

Other

- Fires, explosions, and release of hazardous chemicals
- People falling from trains

Railroads in the United States can be categorized as either passenger or freight, and are classified into three groups:

Class 1 railroads include the large freight railroads that own the majority of the railroad tracks in North America, and generate annual revenues of \$289.4 million or more. In California, these railroads include the Union Pacific (UP) and the Burlington Northern and Santa Fe (BNSF) Railroads. The national passenger railroad, Amtrak is also a Class 1 railroad. All of the Class 1 railroads in California operate in Yolo County, with Amtrak and BNSF operating on the UP owned line. Amtrak operates the Capital Corridor train service through Yolo County, with the only Yolo County station located in Davis. The Capitol Corridor passenger train offers 18 daily trips. Amtrak also operates the California Zephyr and the Coast Starlight, two trans-continental trains which pass through Yolo County each way once a day. See Figure 64 for a picture of the California Zephyr in Davis.



Figure 64: The California Zephyr pulling into the Davis Train Station

Class 2 railroads include smaller regional railroads that generate annual revenues between \$20.5 million and \$289.4 million. The only Class 2 railroad that operates in California is the Central Oregon and Pacific Railroad, and it does not operate in Yolo County.

Class 3 railroads include local railroads and generate annual revenues of less than \$20 million. There are numerous Class 3 railroads throughout California. The two Class 3 railroads that operate in Yolo County are the Sierra Northern Railway and the California Northern Railroad.

The Sierra Northern Railway operates both freight and passenger trains in Yolo County. Passenger operations include the Sacramento River Train, which travels along a 17 mile stretch of track between Woodland and West Sacramento. Freight customers are served along the same stretch of track with an extension to the Port of West Sacramento, where there is a connection with the UP and BNSF railroads. Commodities include lumber, particle board, wallboard, wood chips, bulk gypsum, bulk limestone, bulk plastics, canned goods, tomato paste, frozen fruits/vegetables, chemicals, steel, grain and grain products, ethanol, and propane.

The California Northern Railroad operates freight trains along a line between Tehama and Davis, (see Figure 65) where there is a connection with the UP and BNSF railroads. The line passes through the unincorporated communities of Dunnigan, Yolo, and Zamora as well as through Woodland and Davis. Commodities includes lumber, wine, beer, food products, steel pipe, agricultural products and construction material.



Figure 65: Map of the California Northern Railroad and Union Pacific Railroad Lines

Source: California Northern Railroad

A train accident can cause significant loss of life and/or property and environmental damage depending on the severity of the accident and the type of materials involved. Trains traveling through Yolo County carry flammable, corrosive, and oxidizing commodities as well as numerous other

hazardous materials. In addition to hazardous commodities being transported, fuel tanks on locomotives can also cause a fire and/or an environmental hazard. UP and BNSF trains may have up to three or four locomotives, the largest being the GEAC4400CW which has a 5,000 gallon fuel tank. The Amtrak California Zephyr and Coast Starlight both have two GE Genesis locomotives each of which has a 2,200 gallon fuel tank. In some spill-causing accidents, hazardous commodities are released as gases and can become inhalation hazards, allowing them to travel wherever the wind blows. In other instances, liquids penetrate the water supply and the land, where they ultimately flow into streams and rivers. Spills can result in fires and other property damage as well as the loss of business in towns that must be evacuated because of spills. The damage caused by the spilling of hazardous materials in train accidents can affect almost anything in the area. People, animals, plants, and commerce can all suffer as a result of a toxic spill. A derailment in any of the populated areas of Yolo County could result in significant loss of life as well as property, and economic damage from an evacuation. Both the Sierra Northern Railway and the UP Railroad lines (including Amtrak) traverse the Yolo Bypass. A derailment in this area could impact habitat sensitive areas and agricultural land that is vital to the Yolo County economy. A proposal by BNSF to transport crude oil through Yolo County to the Bay Area is being considered along the UP section of track as of 2016, which significantly increases the chances of a major incident occurring from a train accident in Davis and/or West Sacramento.

There are several vulnerable spots throughout the track infrastructure in Yolo County. The primary area of concern is the curve in Davis where the junction of the UP Railroad and California Northern Railroad lines meet. This junction is in a heavily populated area of Davis. There is also concern that if a train were to derail along this line, it could cause a major explosion if it impacts the Kinder Morgan pipeline which runs adjacent to the line. Another area of concern is the Fremont Bridge used by the Sierra Northern Railway over the Yolo Bypass. This bridge will shift when the Bypass is flooded and water passes under it. The main track used by the Sierra Northern Railroad also passes on top of a Sacramento River levee that could experience erosion in a flooding event. The I Street Bridge, which connects Yolo County to Sacramento and is used by the UP Railroad, is a metal truss swing bridge that is over 100 years old. While inspected and maintained regularly by the UP Railroad, a potential issue in the operation of the bridge could result in a major train accident.

There have been no major train accidents in Yolo County in recent times. A train derailment in 1894 occurred between Davis and West Sacramento (see Figure 66):



Figure 66: 1894 Train Derailment between Davis and West Sacramento
Source: Yolo County Archives

Potential mitigation of a train accident includes working with railroad companies to ensure that track infrastructure is well maintained and that trains are operating safely throughout Yolo County. Other potential options involve relocating rail lines out of areas where a hazardous situation could develop. Such an idea is being proposed the Sierra Northern Railway and the California Northern Railroad that would reduce the amount of freight rail traffic that passes through the populated centers of Woodland and Davis (see Figure 67). Mitigation of train accident impacts also include ensuring that well prepared County and city plans are in place for responding to an incident, and that all railroads lines have well maintained safety and response plans.

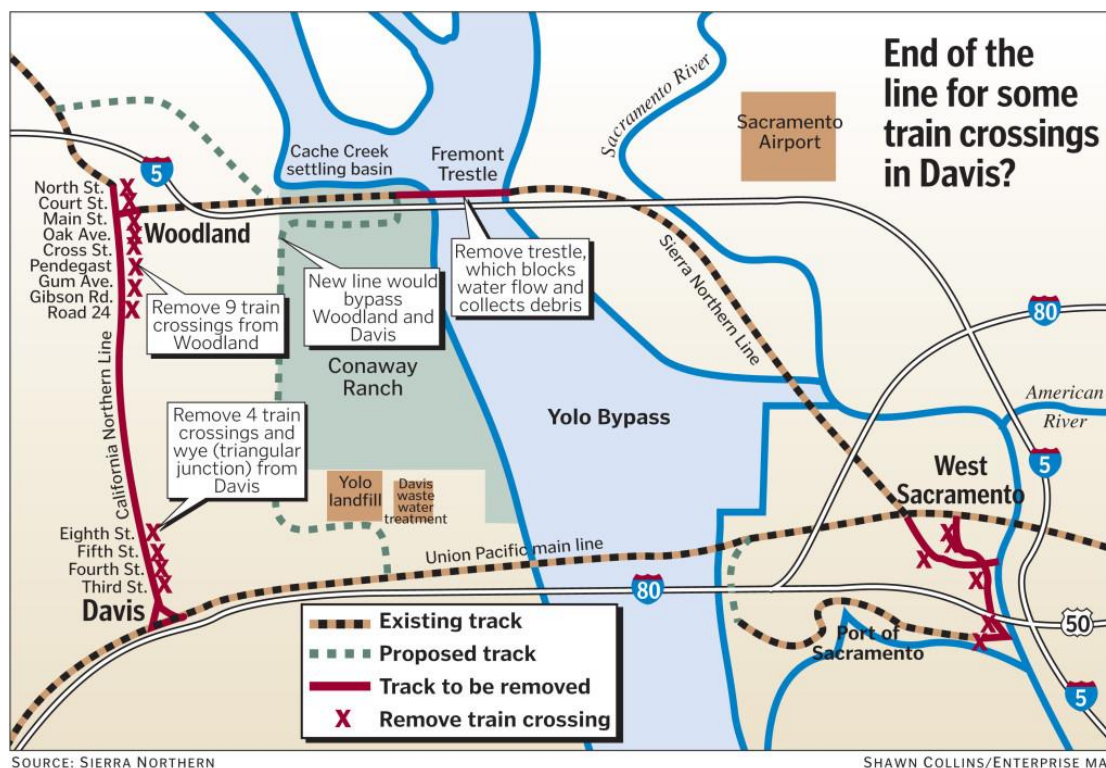


Figure 67: Potential Rail Line Relocation in Yolo County
Source: Davis Enterprise

AIRPLANE ACCIDENT

An airplane accident is an occurrence associated with the operation of an airplane where a person is fatally or seriously injured and where the aircraft sustains damage or loss. Airplane accidents can occur as a result of pilot error, mechanical issues associated with aircraft, terrorism, weather, or other human error. The majority of airplane accidents and fatalities occur before or during takeoff and during approach or landing:

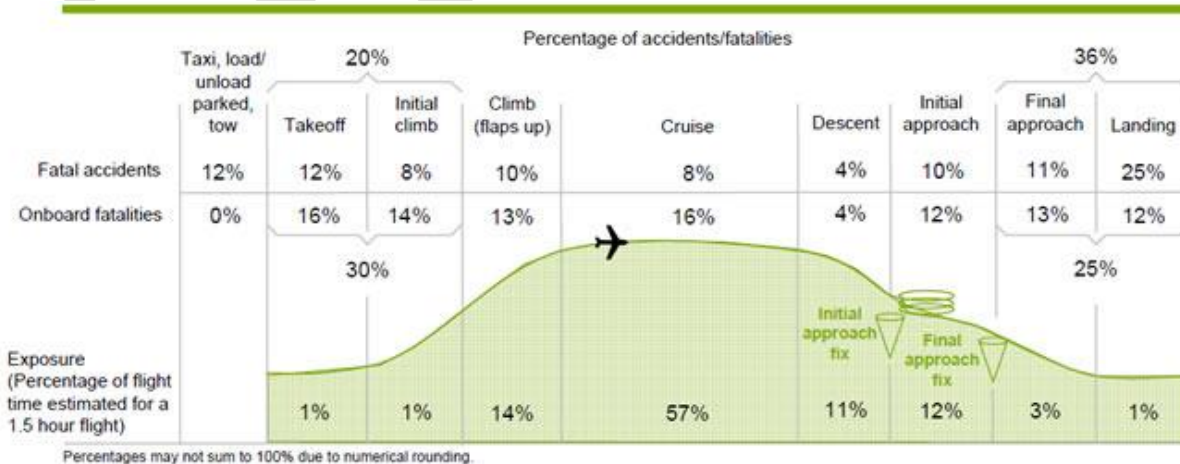


Figure 68: Percentage of Airplane Accidents/Fatalities by Phase of Flight
Source: Boeing

There are several airports and heliports in Yolo County, though none of them serve commercial flights. Sacramento International Airport is located approximately one mile east of the Yolo County border. See Figure 69 for a map of airports and heliports in Yolo County:

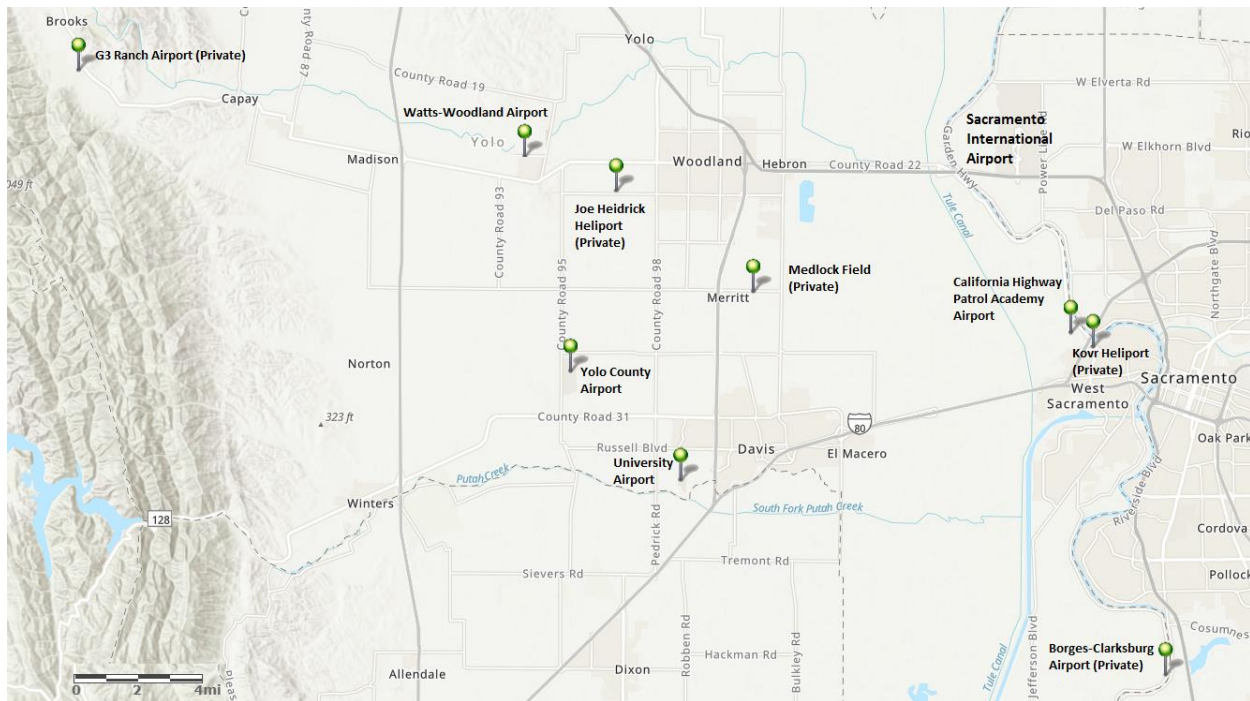


Figure 69: Airports and Heliports in and around Yolo County
Source: Yolo County GIS

Several flights that originate and terminate out of Sacramento International Airport have flight paths over Yolo County. Though an airplane crash could occur anywhere in Yolo County, there is a higher chance of an incident occurring with one of these flights due to the percentage of airplane accidents and fatalities by phase of flight. In particular, routes to and from Sacramento International Airport to San Francisco International Airport and Oakland International Airport pass over the eastern side of the City of Davis. Federal Express also operates out of Sacramento International Airport, with a flight path over the city of Woodland. See Figure 70 for a map of the flight paths to and from Sacramento International Airport for Southwest Airlines, the airport's largest carrier.

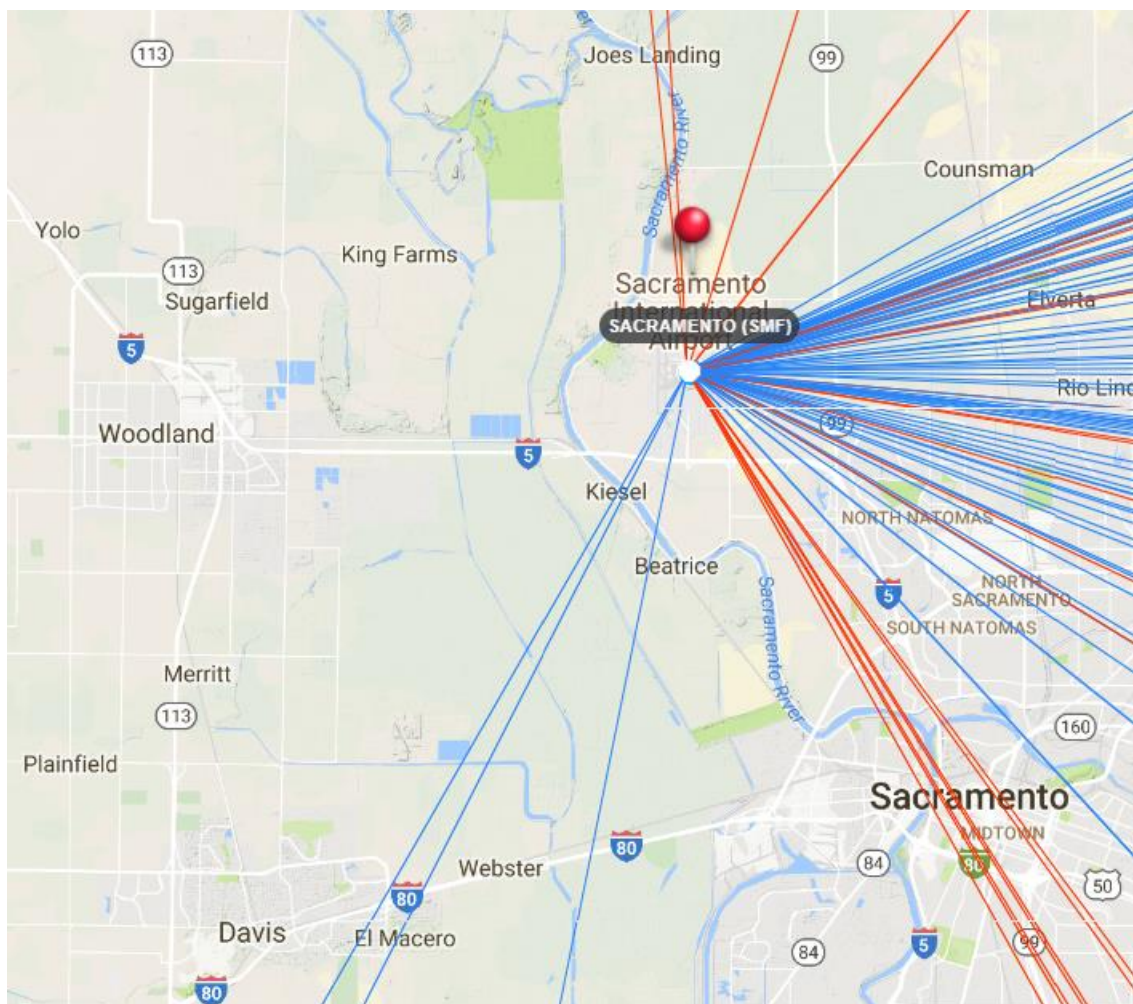


Figure 70: Southwest Airlines Flight Paths for Sacramento International Airport

Source: Southwest Airlines

Several flights that do not originate or terminate at Sacramento International Airport also pass over Yolo County. The largest aircraft by size that fly in and out of Sacramento International Airport are the Boeing 767 (up to 375 passengers), the Boeing 737 (up to 215 passengers), and the Airbus A320 (up to 186 passengers). Air traffic out of Yolo County airports consist primarily of single engine personal use planes as well as crop dusters used by local farmers. A hot air balloon company operates out of the Yolo County Airport.

There could be numerous different impacts from an airplane crash in Yolo County. The worst case scenario would be if a large commercial aircraft were to crash in any heavily populated area of Yolo County, particularly the City of Davis, resulting in a mass casualty incident and significant damage on the ground. The chances of this occurring are small as the flight paths through Yolo County primarily traverse unpopulated areas. The most likely significant events would be an isolated accident of a large commercial aircraft in an unpopulated area or if a small to medium size airplane were to have an incident in a heavily populated area of Davis while attempting to take off or land at the University

Airport. A small or medium size airplane of several passengers could crash into a heavily populated area of any city in Yolo County and cause numerous fatalities and damage on the ground.

To date, there have been no major aviation accidents in Yolo County that have resulted in multiple casualties or extensive property damage. There have been several incidents in Yolo County, some that have resulted in a fatality and/or injuries:

7/23/2016: Two crop dusters collided in the air over a rural area of the County near County Road 99E and County Road 13. One pilot was killed and another injured.

6/30/2017: A small two person plane experienced engine failure while attempting to land at Yolo County Airport and instead landed in a vineyard outside of Dixon. The two occupants were uninjured.

5/14/2016: One person was injured when a hot air balloon toppled over during takeoff at the Yolo County Airport. A strong gust of wind knocked them over.

SHIP ACCIDENT

A ship accident is a marine event that occurs directly in connection with the operation of a ship and results in loss of life, environmental damage, material damage to a ship, and/or the total loss of a ship. Ship accidents can occur as a result of a fire, explosion, collision, grounding/shoaling, contact, heavy weather damage, hull cracking, or hull defect that can result in the immobilization of main engines, penetration of the ship, extensive structural damage, and/or a breakdown that necessitates towing assistance. A ship accident can occur with both cargo and passenger ships.

Yolo County has two navigable waterways where large vessels can be found: the Sacramento River and the Sacramento Deepwater Ship Channel. The only navigable waterway used for large commodity shipping in Yolo County is the Deepwater Ship Channel, which connects the lower Sacramento River to the Port of West Sacramento and has a draft of 30 feet. It is approximately 79 nautical miles from the Golden Gate in San Francisco to the Port of West Sacramento, with an approximately 10 hour trip by ship. Only one ship can traverse the Deepwater Ship Channel at a time due to the width of the channel. The main export from the Port is rice while the main import is cement. The vessels used to transport these commodities are usually standard freighter ships of approximately 180 meters long and 92-105 meters wide, with occasional larger ships of up to 200 meters long (see Figure 71).



Figure 71: A Ship Docked at the Port of West Sacramento

Source: Michael Nyberg

The vessels are regulated by the International Maritime Organization and the U.S. Coast Guard, who inspect the vessels approximately 30-40 percent of the time they are in port. The Deepwater Ship Channel is dredged annually, and there is usually no current up or down it. The primary area of concern for large vessels is the diversion of the Deepwater Ship Channel from the Sacramento River via Cache Slough (see Figure 72) which is located along the border of Solano and Sacramento Counties.

This is the area where the southern end of the Yolo Bypass drains back into the Sacramento River. During times of high water flows, it can be challenging to navigate large ships into the Deepwater Ship Channel. In 2008, there was an instance of shoaling in this area where a ship ran aground. It was able to resume its journey once the tide came in without any damage. Ships with an import of cement will usually pass through the Port of Stockton to unload and reduce their weight before traveling to the Port of West Sacramento. Another issue of concern are power lines traversing the shipping lanes, which sag lower when fully charged. The lines have to hang at or above 119.7 feet, or ten feet higher than the lowest bridge on the waterway. Pacific Gas & Electric has to cut the power to the lines when large ships pass under them.



Figure 72: The Deepwater Ship Channel and Sacramento River
Source: Yolo County GIS

The only potential impacts from a ship incident in the Deepwater Ship Channel would be environmental damage due to excess ballast water or elements of the fuel system being released into the water. The Deepwater Ship Channel does not possess any significant sinking hazards. Neither cement nor rice dust is flammable, and rice dust (unlike wheat dust) is not an explosive hazard. A small amount of non-GMO corn is exported from the Port, but this does not present a fire hazard. There are several rail tanker cars that are stored on the Port property, but they must be empty of their liquid petroleum cargo before they are moved on site. In 2015, Yara International acquired use of the Port and will primarily be importing fertilizer. Yara is not currently importing anhydrous ammonia but potentially could, which would represent the most significant risk to the Port and

surrounding area due to its high explosive rate. A Coast Guard transport would be required for any vessel transporting anhydrous ammonia or other volatile materials.

Passenger vessels can be found on the upper Sacramento River in Yolo County, but are typically small personal watercraft. The Sacramento River is not dredged for shipping use beyond the Cache Slough, and is only 10-14 feet deep in several places. River cruises are operated out of Sacramento, with vessels containing up to 150 passengers. Excursions typically venture two miles upriver and several hundred feet downriver from the docking area in Sacramento. The main hazards for these vessels are floating debris, sunken vessels in the river, and the potential for hitting the I Street and Tower Bridges if a vessel were to lose power. The potential exists for a sinking of one of these vessels when fully laden but the chances of a mass casualty incident is small due to the narrow width of the river as well as the close proximity of rescue personnel from both Yolo and Sacramento counties. The only other large watercraft on the Sacramento River near Yolo County is the 285 foot flat bottomed paddle-wheeler *Delta King*, which is docked in Sacramento and used as a hotel and restaurant.

Mitigation of a ship accident would include ensuring that the channels in the Deepwater Ship Channel and the Sacramento River are properly maintained, and that all vessels are adhering to the requirements of the International Maritime Organization and the U.S. Coast Guard. Ensuring that sound incident response measures are in place is also critical to preventing loss of life as well as material and environmental damage.

3.4.5 POWER/UTILITY FAILURE

A power/utility failure is defined as any interruption or loss of electrical, gas, or drinking/wastewater service due to the disruption of such services caused by accident, sabotage, natural hazards, or equipment failure. A significant power/utility failure is defined as any incident of a long duration which would require the involvement of local and/or state emergency personnel to coordinate a response. Numerous electrical lines and power infrastructure exist in and around Yolo County.

Numerous gas pipelines as well as gas and oil storage facilities exist in and around Yolo County. In particular, the Kinder-Morgan pipeline runs along Interstate 80 and the Union Pacific railroad tracks from West Sacramento to Davis and carries natural gas. The Wickland pipeline carries jet fuel to the Sacramento International Airport. There is also a SMUG gas transmission line as well as a Chevron petroleum pipeline. Power failure can result in transportation disruption, potable water system loss, sewer system outage, telecommunications disruption, economic disruption, a disruption in community services, and impacts to health and human safety. A disruption in gas services can impact the electrical grid and can cause disruption in transportation and community services. It can also prevent people from heating their homes in the winter. A major failure of a gas transmission pipeline can also result in an explosion, which can cause widespread injury and death. An incident along the Kinder-Morgan pipeline could have widespread impacts in the cities of Davis and West Sacramento, and could affect Amtrak and freight service as well as travel along Interstate 80. A disruption in drinking water/wastewater services could have significant biological and environmental impacts.

9/9/2010: A natural gas pipeline exploded in San Bruno, killing eight people and causing widespread damage.

8/8/2011: A widespread power outage affected the San Diego area, the Imperial Valley, the Mexicali Valley in Mexico, and parts of Arizona. It was the largest power failure in California history, and occurred as a result of cascading outages on five separate power grids. There were massive transportation issues in the San Diego-Tijuana metropolitan area due to loss of power with traffic signals. A hospital was left without power for two hours when its backup generator failed.

Downed power lines during the 2017 Winter Storm event caused numerous power outages throughout Yolo County. See the Severe Storms – High Wind profile for more information.

3.4.6 COMMUNICATIONS (IT) FAILURE

Communications failure is defined as the severe interruption or loss of private and or public communications systems, including but not limited to transmission lines, broadcast, relay, switching and repeater stations as well as communications satellites, electrical generation capabilities, and associated hardware and software applications necessary to operate communications equipment. These disruptions may result from equipment failure, human acts (deliberate or accidental), or the results of natural or human caused disasters.

A communications failure would affect essential facilities and the day to day operations of local government as well as the business community. Sites of concern would range from dispatch agencies, satellite uplink and downlink sites, internet service provider sites, and the telecommunication industry switching sites. Interruptions in day to day communications would create problems for businesses, public agencies, citizens, and emergency services,

Problems encountered by Yolo County and its jurisdictions would range from minor inconveniences to loss of production and revenues for businesses. Emergency services could face more serious consequences, as poor or nonexistent communications could escalate what would have been a minor emergency into a disaster situation.

In 2015, a Comcast outage reportedly caused by a cut to a fiber-optic line near Interstate 5 interrupted service to thousands of Comcast customers in Yolo County for several hours on a Thursday afternoon. Also in 2015, vandals cut fiber optic cables that affected Wave Broadband service in Yolo County. Due to the subsequent technical outages, the Woodland Chamber of Commerce office closed its doors. Services were also hampered for emergency service providers across Yolo County and elsewhere. It was also reported that the Woodland American Legion, Post 77, was planning on holding a bingo game Tuesday night had to cancel because the service was automated.

Mitigation initiatives include the development of strategies and processes to prevent or reduce the impact of communication failure events and to reduce the need for response activities. Communications infrastructure should be protected from the adverse effects of disaster.

3.4.7 TERRORISM

Terrorism is defined as the use of threats and violence to intimidate or coerce, especially for political purposes. It is considered an unlawful act of force and violence against person or property to

intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. Threat is defined as any indication, circumstance, or event with the potential to cause loss of or damage to an asset. Identifying threats can be difficult. The magnitude and recurrence of terrorist attacks are almost unpredictable, making the determination of a particular threat for any particular site difficult and largely subjective.

Terrorism can be carried out by a group or individuals. Terrorist actions include injuring or killing people; destroying or damaging facilities, property, equipment, or resources; or stealing equipment, material, or information. Tactics include moving vehicle bombs (including airplanes); stationary vehicle bombs; bombs delivered by persons (suicide bombers); exterior attacks (thrown objects like rocks, Molotov cocktails, hand grenades, or hand-placed bombs); attack weapons (rocket propelled grenades, light antitank weapons, etc.); ballistic attacks (small arms handled by one individual); covert entries (gaining entry by false credentials or circumventing security with or without weapons); mail bombs (delivered to individuals); supply bombs (larger bombs processed through shipping departments); airborne contamination (chemical, biological, or radiological [CBR] agents used to contaminate the air supply of a building); and waterborne contamination (CBR agents injected into the water supply). See Figure 73 for different types of terrorist threats.

Threat	Application Mode	Duration	Extent of Effects; Static/Dynamic	Mitigating and Exacerbating Conditions
High Power Microwave (HPM) EMP	It is a non-nuclear radio frequency energy field. Radio frequency weapons can be hidden in an attaché case, suitcase, van, or aircraft. Energy can be focused using an antenna, or emitter, to produce effects similar to HEMP, but only within a very limited range.	An HPM weapon has a shorter possible range than HEMP, but it can induce currents large enough to melt circuitry, or it can cause equipment to fail minutes, days, or even weeks later. HPM weapons are smaller-scale, are delivered at a closer range to the intended target, and can sometimes be emitted for a longer duration.	Vulnerable systems include electronic ignition systems, radars, communications, data processing, navigation, electronic triggers of explosive devices. HPM capabilities can cause a painful burning sensation or other injury to a person directly in the path of the focused power beam, or can be fatal if a person is too close to the microwave emitter.	Very damaging to electronics within a small geographic area. A shockwave could disrupt many computers within a 1-mile range. Radio frequency weapons have ranges from tens of meters to tens of kilometers. Unlike HEMP, however, HPM radiation is composed of shorter wave forms at higher-frequencies, which make it highly effective against electronic equipment and more difficult to harden against.

Threat	Application Mode	Duration	Extent of Effects; Static/Dynamic	Mitigating and Exacerbating Conditions
Improvised Explosive Device (Bomb) - Stationary Vehicle - Moving Vehicle - Mail - Supply - Thrown - Placed - Suicide Bomber	Detonation of explosive device on or near target; via person, vehicle, or projectile.	Instantaneous; additional secondary devices may be used, lengthening the duration of the threat until the attack site is determined to be clear.	Extent of damage is determined by type and quantity of explosive. Effects generally static other than cascading consequences, incremental structural failure, etc.	Blast energy at a given stand-off is inversely proportional to the cube of the distance from the device; thus, each additional increment of stand-off provides progressively more protection. Exacerbating conditions include ease of access to target; lack of barriers/shielding; poor construction; and ease of concealment of device.
Armed Attack - Ballistics (small arms) - Stand-off Weapons (rocket propelled grenades, mortars)	Tactical assault or sniper attacks from a remote location.	Generally minutes to days.	Varies, based upon the perpetrator's intent and capabilities.	Inadequate security can allow easy access to target, easy concealment of weapons, and undetected initiation of an attack.
Chemical Agent - Blister - Blood - Choking/Lung/Pulmonary - Incapacitating - Nerve - Riot Control/Tear Gas - Vomiting	Liquid/aerosol contaminants can be dispersed using sprayers or other aerosol generators; liquids vaporizing from puddles/containers; or munitions.	Chemical agents may pose viable threats for hours to weeks, depending on the agent and the conditions in which it exists.	Contamination can be carried out of the initial target area by persons, vehicles, water, and wind. Chemicals may be corrosive or otherwise damaging over time if not remediated.	Air temperature can affect evaporation of aerosols. Ground temperature affects evaporation in pools of liquids. Humidity can enlarge aerosol particles, reducing the inhalation hazard. Precipitation can dilute and disperse agents, but can spread contamination. Wind can disperse vapors, but also cause target area to be dynamic. The micro-meteorological effects of buildings and terrain can alter travel and duration of agents. Shielding in the form of sheltering in place may protect people and property from harmful effects for a limited time.



Threat	Application Mode	Duration	Extent of Effects; Static/Dynamic	Mitigating and Exacerbating Conditions
Biological Agent - Anthrax - Botulism - Brucellosis - Plague - Smallpox - Tularemia - Viral Hemorrhagic Fevers - Toxins (Botulinum, Ricin, Staphylococcal Enterotoxin B, T-2 Mycotoxins)	Liquid or solid contaminants can be dispersed using sprayers/aerosol generators or by point or line sources such as munitions, covert deposits, and moving sprayers. May be directed at food or water supplies.	Biological agents may pose viable threats for hours to years, depending on the agent and the conditions in which it exists.	Depending on the agent used and the effectiveness with which it is deployed, contamination can be spread via wind and water. Infection can be spread via human or animal vectors.	Altitude of release above ground can affect dispersion; sunlight is destructive to many bacteria and viruses; light to moderate winds will disperse agents, but higher winds can break up aerosol clouds; and the micro-meteorological effects of buildings and terrain can influence aerosolization and travel of agents.
Radiological Agent - Alpha - Beta - Gamma	Radioactive contaminants can be dispersed using sprayers/aerosol generators, or by point or line sources such as munitions, covert deposits, and moving sprayers.	Contaminants may remain hazardous for seconds to years, depending on material used.	Initial effects will be localized to site of attack; depending on meteorological conditions, subsequent behavior of radioactive contaminants may be dynamic.	Duration of exposure, distance from source of radiation, and the amount of shielding between source and target determine exposure to radiation.
Cyber Attacks	Electronic attack using one computer system against another.	Minutes to days.	Generally no direct effects on built environment.	Inadequate security can facilitate access to critical computer systems, allowing them to be used to conduct attacks.
High-Altitude Electromagnetic Pulse (HEMP)	An electromagnetic energy field produced in the atmosphere by the power and radiation of a nuclear explosion. It can overload computer circuitry with effects similar to, but causing damage much more swiftly than a lightning strike.	It can be induced hundreds to a few thousand kilometers from the detonation.	Affects electronic systems. There is no effect on people. It diminishes with distance, and electronic equipment that is turned off is less likely to be damaged.	To produce maximum effect, a nuclear device must explode very high in the atmosphere. Electronic equipment may be hardened by surrounding it with protective metallic shielding that routes damaging electromagnetic fields away from highly sensitive electrical components.

Figure 73: Types of Terrorist Threats
Source: Center for Disease Control

The most catastrophic form of terrorism would involve use of a nuclear device. Terrorist use of a radiological dispersion device (RDD) – often called “dirty nuke” or “dirty bomb” – is considered far more likely than the use of a nuclear device. These radiological weapons are a combination of conventional explosives and radioactive material designed to scatter dangerous and sublethal amounts of radioactive material over a general area. Such radiological weapons appeal to terrorists because they require very little technical knowledge to build and deploy compared to that of a nuclear device. Also, these radioactive materials, used widely in medicine, agriculture, industry, and research, are much more readily available and easy to obtain compared to weapons grade uranium or plutonium.

Terrorist use of a nuclear device would probably be limited to a single smaller “suitcase” weapon. The strength of such a nuclear weapon would be in the range of the bombs used during World War II. The nature of the effects would be the same as a weapon delivered by an inter-continental missile, but the area and severity of the effects would be significantly more limited.

There is no way of knowing how much warning time there would be before an attack by a terrorist using a nuclear or radiological weapon. A surprise attack remains a possibility. The danger of a massive strategic nuclear attack on the United States involving many weapons receded with the end of the Cold War; however, some terrorists have been supported by nations that have nuclear weapons programs.

Terrorism can occur anywhere in Yolo County and can range from an isolated large scale incident in a city to major disruption of agricultural production. A more likely terrorist event would happen in the populated city of Sacramento adjacent to Yolo County. There have been several terrorist incidents and threats in Yolo County and the surrounding area of Sacramento.

In 1991, 41 people were taken hostage at an electronics store in Sacramento by four gunmen. During the hostage crisis, three hostages as well as three of the gunmen were killed and an additional fourteen hostages were injured. The incident remains the largest hostage rescue operation in U.S. history.

In 2016, a Sacramento man was arrested on an international terrorism charge for traveling to Syria and conspiring to fight alongside various terrorist organizations.

In 2017, a woman was arrested in West Sacramento after claiming she had turned her car into a bomb (see Figure 74). Witnesses reported seeing wires running to the gas tank. The Tower Bridge was closed for several hours before the threat was neutralized without incident. The woman was charged with making a terrorist threat and falsely reporting a bomb to a peace officer.

Mitigation of a terrorist incident includes comprehensive planning to understand and identify terrorist threats and how to respond to them effectively. Public outreach is critical for informing the public to be alert to any suspicious activity and to report it.



Figure 74: 2017 Car Bomb Threat in West Sacramento
Source: Sacramento Bee

3.4.8 CIVIL DISTURBANCE

Civil disturbance is a civil unrest activity such as a demonstration, riot, or strike that disrupts a community and requires intervention to maintain public safety. They are often spontaneous in nature and it can be hard to predict their potential severity. Civil disturbances can originate from numerous different activities including a political rally, a sporting event, or a trial verdict in a high profile court case. They can cause a variety of subsequent issues such as violence and assault, disorderly conduct, and vandalism. Business disruption and property damage can occur, and there can be injuries and death.

Civil disturbances are more likely to form in areas with higher populations, though they can happen in all areas of Yolo County. Of primary concern for Yolo County is the University of California (UC) Davis campus. On November 8th, 2012, UC Davis police pepper sprayed a group of demonstrators who were part of the Occupy California movement. Though no major violence occurred afterwards, the incident had the potential to lead to a large civil disturbance event. See Figure 75 for a non-violent gathering of protesters after the UC Davis pepper spray incident:



Figure 75: Protesters Gathering after the UC Davis Pepper Spray Incident

Source: UC Davis

In January of 2017, violent protests erupted at UC Davis over a planned controversial speech by a national website author. Instances of civil disturbances have occurred on other college campuses. In 2017, political protests at UC Berkley turned violent and over 20 people were arrested. A similar event could occur on the UC Davis campus.

Large events in Yolo County can also lead to civil disturbance. The annual Davis Picnic Day turned violent in 2017, when several Davis police officers were injured in an attack by a hostile downtown crowd. Multiple large gatherings occurred, some of which drew as many as 1000 people and blocked city streets.

Several smaller protests have occurred in Yolo County. Though none have led to a major civil disturbance, the potential for one to occur still exists. In August of 2014, demonstrators in Woodland protested against the fatal shooting of an armed man by police. The police fired stun grenades and tear gas at the crowd and a portion of Interstate 5 had to be shut down temporarily. In February of 2017, over 100 protesters both for and against Planned Parenthood gathered outside of the Planned Parenthood clinic in Woodland. In May of 2017, ten people were arrested and one was injured after protests at the Monsanto Facility in Woodland.

Civil disturbances have also occurred in areas around Yolo County. On June 26, 2016, a riot occurred in Sacramento between a white nationalist group and counter-protestors. Over 400 people were involved, and there were ten stabbings. Approximately 100 police officers responded in riot gear and on horseback, and there were four arrests.

The key to mitigating civil disturbance is to ensure that law enforcement has sound security planning for a wide range of events. It is critical for local, regional, and federal entities to maintain solid relationships to order to collaborate effectively in an event. Social media should be monitored for

groups that plan to protest. Several groups, including Occupy UC Davis and Occupy Woodland, have Facebook pages with frequent postings for demonstrations around Yolo County.

3.4.9 URBAN CONFLAGRATION

An urban conflagration is a large, destructive structural fire that spreads beyond natural and/or artificial barriers to several buildings. It can move beyond a city block and potentially destroy entire sections of a city. Urban conflagrations can spread to a greater degree through wood structures, which often fail as a firebreak. Block construction consisting of cement and brick materials can help to limit the spread of a structural fire. Adequate fire protection systems, including sprinklers and the use of non-flammable building materials can also help prevent a structural fire from spreading out of control. High winds, a large supply of burnable material in and around a structure, and an inability to access a necessary water supply can all hamper the efforts of firefighters in controlling a structural fire. Urban conflagrations will usually spread down wind, and can burn for several days before they are brought under control.

Urban conflagrations can start in numerous ways. A wildfire can spread into an urban area and cause structures to ignite, as had occurred in Lower Lake during the 2016 Clayton Fire and in Santa Rosa during the 2017 Northern California Wildfires. An earthquake can cause an urban conflagration, as had occurred in San Francisco during the 1906 Earthquake. Gas pipeline explosions can cause an urban conflagration, as had occurred in San Bruno in 2010. Urban conflagrations can also be started by riots and arson, as well as from a structural fire that spreads out of control. In 1892, a fire broke out in the rear of a fruit store on Main Street in Woodland. Fanned by strong north winds, the conflagration spread to several blocks before it was under control. A large section of the central business area was destroyed, including the historic opera house, resulting in over \$200,000 in damages. One citizen was killed. See Figure 76 for a picture of Woodland after the 1892 fire.



Figure 76: Woodland after the 1892 Fire
Source: Yolo County Archives

Each city and unincorporated municipality in Yolo County could potentially be impacted by a conflagration, though that risk can be reduced with proper fire prevention measures including sprinklers and fire barriers. Elimination of combustible building materials, including cladding, can help reduce the rate of fire spread. It is also important to ensure that an adequate water delivery system is available. Home and business owners can retrofit their properties to make them more resistant to fire and wind-blown embers, including through proper venting and use of building materials as well by creating defensible space.

3.5 PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

Despite the construction of massive and relatively effective flood control projects, California remains vulnerable to flooding. A rise in population and development contribute to increased flood risk throughout the state. Yolo County (including all special districts) and the cities of Davis, Winters, West Sacramento and Woodland participate in the program. Yolo County has 434 square miles, 256,571 acres and 5,423 individual parcels of floodplain defined by the Federal Emergency Management Agency (FEMA) and the County of Yolo. The regulated floodplain areas are subject to flooding during severe storms. The Yolo County Flood Insurance Rate Maps (FIRM) was first published in 1980 and has been revised over time, mapping Special Flood Hazard Areas (SFHA). Yolo County also has an adopted comprehensive Floodplain Management Program. The jurisdictions participation in the National Flood Insurance Program (NFIP) is shown in the table below.

To address participation and continued compliance with the NFIP the participating jurisdictions will continue to enforce and adopt floodplain management requirements, regulate new construction in special flood hazard areas, update maps for better identification of floodplains and floodplain management programs and activities.

CID #	Community Name	FHBM Identified	FIRM Identified	Current Effective Map Date	Reg-Emer Date	Tribal
060424	City of Davis	11/08/77	11/15/79	06/08/10	11/15/79	No
060728	City of West Sacramento		03/05/90	01/19/95	03/13/90	No
060425	City of Winters	01/23/74	12/01/78	06/18/10	12/01/78	No
060426	City of Woodland	02/01/74	10/16/79	05/16/12	10/16/70	No
060423	Yolo County	10/18/77	12/16/80	05/16/12	12/16/80	No

Data obtained from the FEMA Community Status Book Report, <http://www.fema.gov/fema/csb.shtm>

Given the flood hazard throughout Yolo County, an emphasis will be placed on continued compliance with the NFIP and participation by Yolo County and the City of West Sacramento in the Community Rating System. Other cities are encouraged to begin participating in the CRS. Detailed below is a description of the County's flood management program to ensure continued compliance with the NFIP. Also to be considered are the numerous flood mitigation actions contained in this plan that support the ongoing efforts by the county and the cities to minimize the risk and vulnerability of the community to the flood hazard and to enhance their overall floodplain management programs.

Yolo County has participated in the NFIP since December 16, 1980. Since then, the County has administered floodplain management regulations that meet the minimum requirements of the NFIP. Under that arrangement, residents and businesses paid the same flood insurance premium rates as most other communities in the country. In compliance with the NFIP, Yolo County adopted a

Floodplain Management Ordinance (Title 8 Land Development & Zoning, Chapter 3 Flood Damage Prevention). Yolo County has participated in CRS since 2012. The activities credited by the CRS provide direct benefits to Yolo County and its residents, including:

- Enhanced public safety
- A reduction in damage to property and public infrastructure
- Avoidance of economic disruption and losses
- Reduction of human suffering
- Protection of the environment

Contained in the table below is the NFIP policy and claims statistics for Yolo County as of March 2013. The NFIP claims statistics are historical back to 1982/1983 when NFIP started collecting this data.

Community	Total Premium	Current Policies	Total Coverage	Flood Losses	Dollars Paid Historical
Davis	\$234,692	304	\$94,104	11	\$189,021
West Sacramento	\$1,125,568	2,117	\$678,840	35	\$28,179
Winters	\$27,315	26	\$7,891	5	\$8,844
Woodland	\$1,412,284	1,233	\$346,208	5	\$67,520
Unincorporated Areas	\$966,689	1,112	\$273,037	194	\$2,275,154
Totals	\$3,766,548	4,792	\$1,400,080	250	\$2,568,718

City of Davis

In compliance with the NFIP, the City of Davis adopted Article 8.05 FLOOD PREVENTION of the City of Davis Municipal Code. An emphasis in future planning and mitigation actions will be placed on continued compliance with the NFIP.

City of West Sacramento

The City of West Sacramento has been in the NFIP since the City incorporated in 1987, and prior to incorporation was in the NFIP as part of Yolo County. The City began participation in the CRS in 2010, receiving a Class 8 rating in 2011. The City maintains a Class 6 rating today. An emphasis in future planning and mitigation actions will be placed on continued compliance with the NFIP as well as the CRS

City of Winters

The City of Winters participates in the NFIP. The intent of the program is to reduce future flood losses through local floodplain management and to provide protection for property owners against potential losses through flood insurance. As part of the agreement for making flood insurance available in the community, the NFIP required the City of Winters to adopt a floodplain management ordinance containing certain minimum requirements intended to reduce future flood losses.

On March 1, 1994, the City Council of the City of Winters adopted Ordinance 94-04, which included floodplain management regulations. Specifically, the purpose of the ordinance was to promote the

public health, safety, and general welfare, and to minimize public and private losses to flood conditions in specific areas of the City.

On September 28, 2009, Winters city staff met with a representative from the Federal Emergency Management Agency (FEMA) for a “Community Assistance Visit.” The purpose of the meeting was to provide City staff with the most current information on the NFIP, give staff an opportunity to discuss concerns regarding floodplain management, and assess the City’s enforcement of the local floodplain management ordinance that was adopted to meet the requirements of the NFIP.

The FEMA visit resulted in the determination that it was necessary to amend the City’s Flood Damage Protection chapter of the municipal code to reflect changes to the NFIP and to clarify some of the requirements. To bring the City into compliance with the NFIP the City Council of the City of Winters adopted Ordinance 2010-03 on March 31, 2010 amending Chapter 15.64 of the Winters Municipal Code regarding flood damage protection.

City of Woodland

The City of Woodland continues to enforce the compliance with the NFIP through their Flood Plain Management Ordinance. However, as in much of California, FEMA is working with local governments to refine and remap the floodplains. These changes to flood mapping and zoning in Woodland may result in additional properties needing to be insured and evaluated in future plans.

3.6 REPETITIVE LOSS AND SEVERE REPETITIVE LOSS PROPERTIES

Table 7 shows the Repetitive Loss and Severe Repetitive Loss Properties in Yolo County including the cities as of 2017. There are a total of **32** properties and of these properties countywide, all are residential.

Yolo County RL and SRL Property Information*				
Jurisdiction	Number of RLP's	RLP Total Payouts	Number of SRL's	SRL Total Payouts
Yolo County**	34	\$1,432,329.80	0	\$0
Davis, City of	3	\$80,350.20	0	\$0
West Sac, City of	1	\$3,759.64	0	\$0
Winters, City of	0	\$0	0	\$0
Woodland, City of	0	\$0	2	\$219,546.40

Table 7: Repetitive and Severe Repetitive Loss Properties in Yolo County

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SECTION 4.0 MITIGATION STRATEGY

Mitigation projects that address the goals and objectives developed in the previous step were identified, evaluated, and prioritized. These actions form the core of the mitigation plan. A capabilities assessment was conducted by the County and each jurisdiction, reviewing existing local plans, policies, and regulations for any other capabilities relevant to hazard mitigation planning. An analysis of their capability to carry out these implementation measures with an eye toward hazard and loss prevention was conducted.

The capabilities assessment required an inventory of each jurisdiction's legal, administrative, fiscal and technical capacities to support hazard mitigation planning. After completion of the capabilities assessment, each jurisdiction evaluated and prioritized their proposed mitigations. Each jurisdiction considered the social, technical, administrative, political, legal, economic, and environmental opportunities and constraints of implementing a particular mitigation action. This step resulted in a list of acceptable and realistic actions that address the hazards identified in each jurisdiction. The capability assessment for each jurisdiction can be found in their Community Profiles.

4.1 CHANGES IN DEVELOPMENT

Lying directly between the rapidly growing regions of Sacramento and the Bay Area, Yolo County has experienced and will continue to experience tremendous pressures for added residential, commercial and industrial development. The access provided by the Sacramento International Airport and the railroad, the West Sacramento Deep Water Channel, Interstates 5, 80 and 505, have created constant growth pressures in the county.

Yolo County at the time of the 2005 plan was in a period where many plans were being developed and executed to expand in the areas of residential housing, commercial and retail establishments. Since that time, the populations have increased, many new residential, commercial and retail developments were constructed and occupied. During the economic downturn, those same developments were either vacant and or foreclosed upon. Now, due to development changes and future development plans for the participating jurisdictions, the mitigation strategies contained in the 2005 and 2013 plan were updated and revised to reflect what was happening countywide with development, current and projected population increases, risk, vacant structures and climate change. Also, due to the changes in development the mitigation efforts needed to be updated to align with the goals and objectives noted in this planning update. Increase in growth across Yolo County exposes additional people to the risk they face in their respective jurisdictions. Overall risk across the Yolo Operational Area has not changed much since the last plan update in 2013, though the development of the PG&E facility outside of Winters helps to lower risk by enhancing response to severe storms.

Despite the growth spurt and then the market downturn the net result was slow growth for Yolo County. This plan was revised reflecting this process and anticipating a continued slow growth pattern which induces changes to our planning approach.

4.2 CHANGES IN PRIORITIES

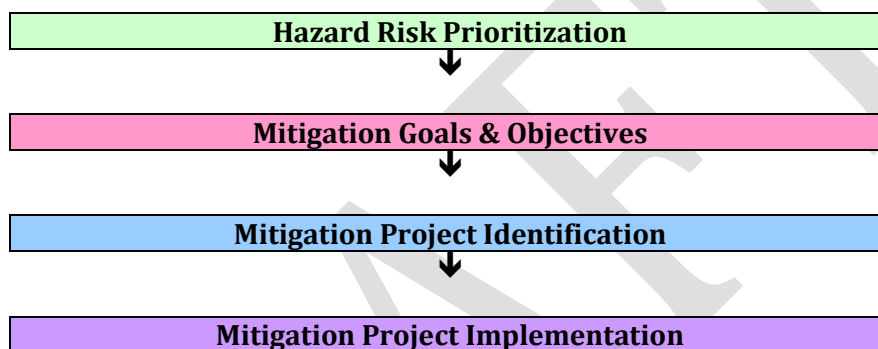
The overall priorities in Yolo County and the participating jurisdictions in this plan update have changed since the 2005 Mitigation Plan. Additionally, the strategies in which to support the overall county priorities have changed and are reflected in the sections below. There were many projects that were either ongoing day-to-day business activities or were response related that were deleted from the 2005 project list and not carried over to this plan update. Several actions were completed

and new projects were added to coincide with the changes in priorities, progress in local mitigation efforts and changes in development.

Politically the county has maintained its financially conservative nature in expending available funds and its overall desire to stay true to itself in remaining focused on agricultural preservation. With the lack of disasters and the decline of available funding, the mitigation strategies needed to be revised to fit the overall county priorities and be developed so that most could be started or accomplished for this next 5-year plan cycle.

4.3 MITIGATION GOALS

The information developed for the risk assessment was used as the primary basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines explaining what each jurisdiction wants to achieve in terms of hazard and loss prevention.



Goal statements are typically long-range, policy-oriented statements representing jurisdiction-wide visions. Objectives are statements that detail how each jurisdiction's goals will be achieved, and typically define strategies or implementation steps to attain identified goals. Other important inputs to the development of jurisdiction-level goals and objectives include performing reviews of existing local plans, policy documents, and regulations for consistency and complementary goals, as well as soliciting input from the public.

The following represents overarching strategic goals associated with the identification and eventual implementation of appropriate and meaningful hazard mitigation efforts in relation to prioritized hazards and threats confronting the Yolo Operational Area. These goals form the basis for specific supporting process objectives and are shown from the highest priority, at the top of the list, to those of lesser importance.

The establishment of hazard mitigation goals represents both individual and collective strategies that have been mutually agreed upon by the Steering Committee, and have not changed with the 2018 HMP update. Eventually, these goals will be adopted by each participating jurisdiction and public agency as the guiding policy behind local hazard mitigation efforts, in conjunction with other associated principles.

Goal 1:	Protection of life during and after the occurrence of disasters from identified hazards;
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Goal 2:	Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
Goal 3:	Protection of emergency response capability
Goal 4:	Protection of developed property, homes and businesses, industry, educational opportunities and the cultural fabric by combining hazard loss reduction with the community's environmental, social and economic needs
Goal 5:	Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives
Goal 6:	Preserving or restoring natural mitigation values such as flood plains.
Goal 7:	Protection of natural resources and the environment.

Planning Process Objectives

The following objectives are meant to serve as a metric upon which the Yolo Operational Area Hazard Mitigation Plan can be evaluated. Meeting these objectives assures the Multi Hazard Mitigation Plan as a functional document that identifies short-and long-term strategies, and describes each measure including:

Objective 1:	Identification of individuals, agencies or organizations responsible for project implementation.
Objective 2:	Projecting a realistic and doable time frame for project implementation.
Objective 3:	Explanation of how the project will be financed including the conditions for financing and implementation as information is available.
Objective 4:	Identification of alternative measures, should financing not be available.
Objective 5:	Maintain consistent support for the implementation of existing hazard mitigation planning goals and objectives for the operational area.
Objective 6:	Base mitigation strategies on hazards as identified within the Yolo OA Risk Assessment.
Objective 7:	Provide significant potential for the effective reduction of damage to public and/or private property, or to costs associated with local, state, and federal recovery from future potential impacts.

Objective 8:	Establish and maintain a benchmark for identifying the most practical, cost effective, socially acceptable, and environmentally sound mitigation solution after consideration of available alternatives.
Objective 9:	Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential for loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering.
Objective 10:	Meet applicable permit requirements.
Objective 11:	Develop mitigation standards for development in hazardous areas.
Objective 12:	Contribute to both the short-and long-term solution to the hazard vulnerability risk problem.
Objective 13:	Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation.
Objective 14:	Have manageable maintenance and modification costs.
Objective 15:	When feasible, be designed to accomplish multiple objectives including improvement of life safety, damage reduction, restoration of essential services, protection of critical infrastructure, security of economic development, recovery, and environmental sustainability.
Objective 16:	Whenever feasible, use existing resources, agencies and programs to implement the project.
Objective 17:	Include regional hazard mitigation concerns and strategies

4.4 PROJECT LIST

The Hazard Mitigation Plan was revised to reflect progress in local mitigation efforts. Mitigation projects were selected for each hazard and for each jurisdiction based off the hazard risk assessment. The projects are supported by the mitigation goals and objectives, and are ranked using the following criteria; approximate cost, timeframe of completion, whether the project requires Board of Supervisors regulatory action, and an assumption as to whether or not the project would be subject to CEQA or NEPA requirements. Funding sources are identified for all projects. All projects consider new, future, and existing development.

A cost benefit review process will be completed for each project that will be submitted during a given fiscal year. The general priorities of the cost benefit risk analysis will focus on projects that are lifesaving, life safety, property protection and lastly environmental protection. A ratio of at least one dollar of benefit for each dollar invested will be considered the minimum cost benefit ratio for any projects submitted within Yolo County and its participating jurisdictions.

Full descriptions of each mitigation project are found in each community profile. A summary is found in the table below.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
All Hazards Public Awareness and Disaster Preparedness	All / Yolo County Office of Emergency Services (OES)	Existing (2005)	Yolo County OES General Fund	Ongoing	Important element of CRS program
Convene Local/Tribal Disaster Councils	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	2020	Disaster Councils are being joined into one OA Coordinating Group
Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	Yolo County and the Cities of Davis, West Sacramento, Winters, and Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Community Warning System	All / Yolo County OES	COMPLETED (2005)	Yolo County OES General Fund	Completed	These systems are continually updated due to changing technology
Care and Shelter Planning to include People with Disabilities, the Elderly, Access and Functional Needs, and Animals	All / Yolo County Health and Human Services Agency (HHSA)	Existing (2013)	Yolo County OES General Fund	Ongoing	Rapidly changing planning effort due to evolving best practices

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Community Emergency Response Training	Cities of Davis / Fire Department and West Sacramento / Fire Department	COMPLETED (2013)	Yolo County OES General Fund	Completed	Basic level of preparedness for families and neighborhoods
Develop Public Health and Mass Care Tiered Response System Countywide	All / Yolo County HHSA	DELETED (2013)	DELETED	Deleted	Major advance in capability within medical and human services communities to meet needs of Yolo County residents
2018 Yolo County Hazard Mitigation Plan Update	All / Yolo County OES	NEW (2016)	PDM, HMGP	2018	Five-year required update
Generator for Emergency Backup Power to EOC	Yolo County Housing / Yolo County Housing	Existing (2013)	PDM, HMGP	2018	Ongoing
Structural Retrofit of Madison Fire Station	Yolo County / Madison Community Services District	NEW (2017)	PDM, HMGP	2018	Ongoing
Emergency Generator – District Office	Yolo County / RD108	NEW (2017)	\$70,000 PDM, HMGP	2020	Design Initiated
DROUGHT					
Drought Contingency Plan	All / Yolo County OES	Existing (2013)	PDM, HMGP	2018	Ongoing
Drought Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Cacheville Well Replacement	Yolo County / Cacheville Community Services District	NEW (2017)	PDM, HMGP	2018	Serves the town of Yolo, affected by climate change
Groundwater Wells	Yolo County / RD108	NEW (2017)	\$1M USBR, PDM, HMGP	2019	Study initiated
FLOODING/DROUGHT					
Forbes Ranch Regulating Pond	Yolo County/ YCFCWCD	NEW (2018)	PDM, HMGP	Ongoing	Ongoing
North Winters Retention Pond	Yolo County/ YCFCWCD/ City of Winters	NEW (2018)	PDM, HMGP	Ongoing	Ongoing
EARTHQUAKE					
Non-Structural Mitigation Outreach Program	All / Yolo County Community Services Department	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
FLOODING/LEVEE FAILURE					
Cache Creek Flooding	Woodland / Public Works Division, Yolo County / Yolo County OES	Existing (2005)	DWR Grants	Ongoing	Ongoing
Flood Response Planning Project to Include GIS Mapping	Yolo County / Yolo County OES, West Sacramento / Public Works Department	Completed (2013)	DWR Grants	Completed	Completed
Levee Improvements	West Sacramento / Public Works Department	Existing (2005)	DWR Grants	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Promote Flood Insurance (Cont'd participation in the NFIP)	Yolo County and the Cities of Davis, West Sacramento, Winters, Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Davis Wastewater Treatment Plant Road Elevation	Davis / Public Works Department	NEW (2017)	PDM, HMGP	2019	Ongoing
Davis Wastewater Treatment Plant Berm	Davis / Public Works Department	NEW (2017)	PDM, HMGP	2019	Designed to 500-year floodplain standards
FIRM Map Updates	Davis / Public Works Department	NEW (2017)	PDM, FMA	Ongoing	To include H Street Pump Station
Stormwater Management Plan	West Sacramento / Public Works Department	NEW (2017)	PDM, HMGP	Ongoing	Includes effects of climate change
Sutter Ave. Reconstruction and Infrastructure	West Sacramento / Public Works Department	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Madison Housing Elevation	Yolo County / Yolo County OES	NEW (2017)	FMA, HMGP	2019	Elevate all houses in Madison (147) out of 100-year floodplain
Madison Stormwater Management	Yolo County / Yolo County OES	NEW (2017)	PDM, HMGP	2019	Conduct a study to determine how water can be stored/ rerouted to prevent Madison flooding

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Stabilization of Sacramento River Levee Toe	Yolo County / RD 827	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
East Bypass Levee Hardening and Armoring of Pump Plant	Yolo County / RD 827	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Backup Generator	Yolo County / RD 900	NEW (2017)	HMGP	2020	Timeframe dependent upon HMGP grant award
Hardening of Blacker Canal Bank	Yolo County / RD 900	NEW (2017)	HMGP	2021	Timeframe dependent upon HMGP grant award
SCADA Implementation	Yolo County / RD 900	NEW (2017)	HMGP	2020	Timeframe dependent upon HMGP grant award
Hardening of Bridgeway Lakes Drainage Canal	Yolo County / RD 900	NEW (2017)	HMGP	2018	Timeframe dependent upon HMGP grant award
Stabilization of Sacramento River Levee Toe	Yolo County / RD 1600	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Hardening of Sacramento River Levee	Yolo County / RD 1600	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Armoring of East Bypass Levee	Yolo County / RD 1600	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Hardening of Cross Levee	Yolo County / RD 2035	NEW (2017)	PDM, HMGP	\$250,000	Ongoing
Siphon Upgrade	Yolo County / RD2035	NEW (2017)	PDM, HMGP	2018	
Emergency Generator – Pump Stations	Yolo County / RD108	NEW (2017)	\$70,000 PDM, HMGP	2020	Design Initiated
Stabilization of Colusa Basin Drain Levee	Yolo County / RD108	NEW (2017)	\$3M DWR grant PDM, HMGP	2022	Problem identification

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Seepage Mitigation of Sacramento River Levee	Yolo County / RD108 – Sacramento River West Side Levee District	NEW (2017)	\$8M DWR grant, local cost share PDM, HMGP	2019	Design and Permitting initiated
Hardening of Sacramento River Levee	Yolo County / RD108- Sacramento River West Side Levee District	NEW (2017)	\$5M DWR grant PDM, HMGP	2022	Problem identification
Hardening of Knights Landing Ridge Cut Levee	Yolo County / RD108 – Knights Landing Ridge Drainage District	NEW (2017)	\$3M DWR grant PDM, HMGP	2022	Problem identification
Hardening of Colusa Basin Drain Levee	Yolo County / RD 108	NEW (2017)	\$1M DWR grant PDM, HMGP	2023	Problem identification
Invasive Species Removal in Canals	Yolo County / RD108	NEW (2017)	\$100,000 PDM, HMGP	Ongoing	Ongoing
Flood Basin Segmentation	Yolo County / RD108 – Knights Landing Ridge Drainage District	NEW (2017)	\$10M DWR grant PDM, HMGP	2022	Study initiated
West Adams Canal Road and Cache Creek Bank Erosion Emergency Repair Project	Yolo County/ YCFCWCD	COMPLETED (2017)	\$250,000 CDAA/FEMA Funding and YCFCWCD Capital Job Funding	June 2017	
RD 537 Pump Station Upgrades	City of West Sacramento / Yolo County / RD 537	New	\$2.2 million HMGP	2023	

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
West Sacramento Storm Drain Master Plan Update	City of West Sacramento	Existing	\$2.2 million HMGP	2023	
Localized Flooding Reduction Project	City of West Sacramento	Existing	\$13.5 million HMGP	2028	
DAM FAILURE					
Indian Valley Dam Upgrades	Yolo County / YCFCWCD	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Capay Valley Diversion Dam (West Adam and Winters Headworks) Upgrades	Yolo County / YCFCWCD	EXISTING (2018)	YCFCWCD Capital Job Funding	October 2018	Ongoing
SEVERE WEATHER					
Emergency Power	Yolo County and the Cities of Davis, West Sacramento, Winters, Yolo County OES	Existing (2005)	PDM, HMGP	Ongoing	Ongoing
Winter Weather Preparedness Campaign	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
WILDFIRE					
Fuel Reduction in Local Responsibility Areas	All / Yolo County OES	Existing (2013)	CalFire Grants, Fire Safe Council Grants, HMGP	Ongoing	Ongoing
State Route 128 Fire Prevention	Winters / Fire Department, Yolo County / OES	NEW (2017)	CalFire Fire Prevention Grant, PDM, HMGP	2018	Working with CalTrans and CalFIRE to reduce vegetative fuels

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Wildfire Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change
Indian Valley Dam Power Pole Upgrade	Yolo County / YCFCWCD	NEW (2018)	PDM, HMGP	Ongoing	Ongoing
CLIMATE CHANGE					
Farmer Outreach Program to Reduce Fossil Fuel Consumption	Yolo County / Department of Agriculture	Existing (2011)	U. S. Department of Energy; Environmental Protection Agency, Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Create an outreach program to inform Yolo farmers about ways to reduce nitrogen fertilizer application with minimal effects on crop yield; promote fuel efficient farm equipment and operations

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Farmer Outreach Program to Reduce Greenhouse Gas Emissions	Yolo County / Department of Agriculture	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Create an outreach program to promote fuel efficient farm equipment and operations

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Energy Use in Agricultural Pumping	Yolo County / Department of Agriculture, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmenta l Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Waive county permit fees for projects that convert tailwater-return pumps to solar power; create an outreach and incentives program to encourage farmers to improve the efficiency of irrigation pumps.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Livestock Manure Methane Emissions	Yolo County / Department of Agriculture	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Work with livestock operators to identify funding assistance for the implementation of methane biogas control systems and related renewable energy generation systems

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Methyl Bromide Application	Yolo County / Department of Agriculture, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmenta l Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Phase-out methyl bromide in pesticide applications

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Sequester Carbon in Agricultural Landscapes	Yolo County / Department of Agriculture, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Create a program to restore riparian woodlands in locations consistent with the Yolo Natural Heritage Program to offset expected development emissions; create a program to allow developers to pay fees to the Resource Conservation District to help it implement its on-farm conservation practices program; develop a system for tracking the establishment of new orchards in the County using GIS

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Vehicle Miles Traveled	Yolo County/ Community Services Department	Existing (2011)	U. S. Department of Energy, Environmenta l Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Achieve Vehicle Miles Traveled performance standards identified in the 2030 Yolo County General Plan; implement Transportation Study Impact Guidelines

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Community Choice Aggregation (CCA) Program	Yolo County / County Administrato r Office	Existing (2011)	U. S. Department of Energy, Environmenta l Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Develop a CCA Program that will help prioritize the development of local energy projects

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Energy Consumption in Existing Residential and Non-Residential Units	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Promote incentive and technical assistance programs (Energy Upgrade California Program, Yolo Energy Watch); implement the Property-Assessed-Clean-Energy (PACE) Program; amend the Yolo County Code to improve overall energy efficiency by 15%; increase participation by eligible low-income residents in the Department of Energy Weather Assistance Program and the Low-Income Home Energy Assistance Program

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Energy Consumption in New Residential and Non-Residential Units	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Amend the Yolo County Code to require all new residential construction exceed the California Energy Code 2008 Energy Efficiency Standards by 15% (all new homes over 3,500 square feet of livable space by 30%); amend the Yolo County Code to require all new non-residential construction exceed the California Energy Code 2008 Energy Efficiency Standards by 15% beginning in 2013; create an incentive program for commercial builders to exceed the California Energy Code Energy Efficiency Standards by 30% or more

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Increase On-Site Renewable Energy Generation to Reduce Demand for Grid Energy	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Develop an outreach program to promote the Energy Upgrade California Program for residents; implement the PACE Program; develop an outreach program to promote financial incentives through the California Solar Initiative (CSI) for installing hot water heaters; amend the Yolo County Code to require all new residential and commercial development to install solar hot water systems; amend the Yolo County Code to require all new residential development of four units or more and non-residential development to install solar photovoltaic systems capable of providing 10% or more of the development's total projected electricity consumption

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Promote On-Farm Renewable Energy Facilities	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Develop a farmer-to-farmer workshop program to promote on-farm renewable energy generation; identify funding sources to finance investments in renewable energy for agricultural operations

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Water Consumption in Existing Buildings through Increased Plumbing Fixture Efficiency	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Amend the Yolo County Code to require all residences built before 1994 to be retrofitted with water efficient fixtures prior to resale; develop a program to promote voluntary water efficiency retrofits for existing buildings

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Promote Weather-Based Irrigation Systems and Water Efficient Turf Management	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Require all automatic irrigation system controllers be weather based; amend the Yolo County Code to limit turf to no more than 25% of the front yard in new residential development

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Expand Landfill Methane Capture Systems	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020	Enhance and expand existing landfill gas collection and destruction systems (90% control efficiency) at the Yolo County Central Landfill

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Prepare for the Effects of Climate Change on Agriculture	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmenta l Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2015	Develop outreach programs to inform and assist farmers in changing crop patterns and/or practices to adapt to the effects of climate change; develop a program to monitor and summarize relevant studies pertinent to climate change effects on agriculture and potential adaption strategies

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Prepare for Climate Change Effects on Water Resources	Yolo County / County Administrator Office, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2015	Work with the Water Resources Association of Yolo County to update the Integrated Regional Water Resource Management Plan to monitor and respond to climate change effects on water resources

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Respond to the Potential Threat of Sea-Level Rise	Yolo County / Office of Emergency Services / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2015	Coordinate with FEMA and DWR to ensure that the flood mapping for potentially affected areas is regularly updated to reflect changes in Base Flood Elevations accounting for sea level rise; expand outreach under the Community Rating System to inform residents of potentially affected areas regarding the need to plan for sea-level rise; identify areas that will be affected by sea-level rise and institute protection and adaption measures; revise capital improvement plants for critical infrastructure (including levees and roads) in potentially affected areas to address the effects of future sea level rise

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Protect the Public from Increased Health Risks	Yolo County / OES, HHSA	Existing (2011)	U. S. Department of Energy, Environmenta l Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2014	Update the Yolo County Hazard Mitigation Plan to address public health risks associated with climate change

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Develop Governance Strategies to Ensure that Yolo County Remains Resilient to Climate Change	Yolo County/ OES, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmenta l Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2013-2014	Provide updates to the Board of Supervisors on climate change adaptation science, policy, and legislation; update the Yolo County Hazard Mitigation Plan with an emphasis on climate change related effects and risks to Yolo County; consult and coordinate with applicable agencies regarding development of climate adaptation priorities; collaborate with UC Davis on regional climate data monitoring and risk modeling

Specific funding sources and financing mechanisms have not been identified for all measures; however, numerous federal, State, and regional grants are available to provide funding. Which funding sources the County decides to pursue and which financing mechanisms the County develops and administers will be addressed through more detailed implementation. Detailed costs of climate change initiatives can be found in the Yolo County Climate Action Plan.

4.5 PROGRESS IN LOCAL MITIGATION EFFORTS

This plan has been created as a “living” document with input from the population and professionals within Yolo County. Based on the planning meetings and the progress monitored by the steering committee members several mitigation actions were accomplished since the last planning cycle. Table 8 on the following pages provide a brief description of the progress made in the local mitigation efforts and the plan for those mitigation actions that were not completed or are ongoing.

Progress in Local Mitigation Projects					
Jurisdiction/2005 Action	Complete	Ongoing	Not Started	2013 Project	Comments
Community Warning System Project – West Sacramento	X				Purchased new Mass Notification System
Joint Davis/UC Davis Alerting System			X		Campus and City own separate MN systems and coordinate sends
Continue enforcement of County Codes and ordinances (Flood Damage Prevention) - County	X (2013)	X			Project is ongoing day to day work for county staff and will not be included in 2013 projects
Cache Creek Flooding		X		X	Project ongoing
All-Hazards Public Education – All Jurisdictions			X	X	Not completed or implemented will be carried over to a 2013 Project
Flood Response Plan- West Sacramento	X				New FRP from AECOMM
Develop Relationships with Partners – All Jurisdictions		X			Project is ongoing and will not be included in 2013 projects
Flood Warning System – Woodland	X				Purchased OA wide MN System
Levee Improvement Projects – West Sacramento		X		X	Project is ongoing and will carry over to 2013 projects
Terrorism Information Collection – All Jurisdictions	X (2013)	X			Project is ongoing for county/city and will not be included in 2013 projects; this will be addressed in specific response plans

Progress in Local Mitigation Projects					
Weed Abatement – All Jurisdictions	X (2013)	X			Project is ongoing day to day work for county/city staff and will not be included in 2013 projects
Emergency Power – All Jurisdictions		X			Project is ongoing and will carry over to 2013 projects
Plant/Food/Animal Public Education Program			X		Project not completed due to funding; project will not carry over to 2013 plan
Continue Code Enforcement of Existing and Future Buildings	X (2013)	X			Project is ongoing and will not be included in 2013 projects as presented in 2005 plan

Table 8: Progress in Local Mitigation Activities

4.6 PROJECT IMPLEMENTATION

The Yolo County Office of Emergency Services will be the central coordination point for maintaining this plan and will serve as a lead staff for grant project applications on the countywide projects selected for application under the Hazard Mitigation Assistance grant programs. Additionally, each jurisdiction applying for grant funds on their own will serve as lead staff for project implementation with assistance from the county and participating Steering Committee members as requested.

An important implementation mechanism that is highly effective and low-cost is incorporation of the hazard mitigation plan recommendations and their underlying principles into other county and city plans and mechanisms. Where possible, plan participants will use existing plans and/or programs to implement hazard mitigation actions. Mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government and development. As described in this plan's capability assessment, the County and participating jurisdictions already implement policies and programs to reduce losses to life and property from hazards. This plan builds upon the momentum developed through previous and related planning efforts and mitigation programs and recommends implementing actions, where possible, through these other program mechanisms. These existing mechanisms include:

- County and City general and master plans
- County and City Emergency Operations Plans
- County and City ordinances

- Flood/storm water management/master plans
- Community Wildfire Protection plans
- Capital improvement plans and budgets
- Other plans and policies outlined in the capability assessments in the jurisdictional annexes
- Other plans, regulations, and practices with a mitigation focus

Steering Committee members involved in these other planning mechanisms will be responsible for integrating the findings and recommendations of this plan with these other plans, programs, etc., as appropriate. Implementation and incorporation into existing planning mechanisms will be done through the routine actions of:

- Monitoring other planning/program agendas
- Attending other planning/program meetings
- Participating in other planning processes
- Monitoring community budget meetings for other community program opportunities

The successful implementation of this mitigation strategy will require constant and vigilant review of existing plans and programs for coordination and multi-objective opportunities that promote a safe, sustainable community. A few examples of incorporation of the Local Hazard Mitigation Plan into existing planning mechanisms include:

- 1) As recommended by Assembly Bill 2140, each community should adopt (by reference or incorporation) this LHMP into the Safety Element of their General Plans. Evidence of adoption (by formal, certified resolution) shall be provided to CalOES and FEMA
- 2) Integration of flood actions identified in this mitigation strategy with the actions and implementation priorities established in existing Flood Management Programs
- 3) Using the risk assessment information to update the hazards section in the County, Cities, Housing and Tribal Emergency Operations Plans

Efforts should continuously be made to monitor the progress of mitigation actions implemented through these other planning mechanisms and, where appropriate, their priority actions should be incorporated into updates of this hazard mitigation plan.

4.7 FUTURE DEVELOPMENT TRENDS

As part of the planning process, the Steering Committee looked at changes in growth and development and examined these changes in the context of hazard areas and how the changes in growth and development affect loss estimates and vulnerability.

Yolo County has been steadily growing over the last several decades. Long-term forecasts by the California Department of Finance project population growth in Yolo County continuing through 2060, adding 52% to the 2010 county population by the year 2060. The population projections are for the County as a whole and are shown in below:

	2010 Population	2060 Population	2010-2060 Growth	Total Growth
Yolo County	201,311	305,711	+104,400	52%

Yolo County seeks to preserve agriculture while also diversifying, and is allowing measured, appropriate residential and economic development, focused within existing communities. Upward trends in population growth and development in Yolo County increase vulnerability to hazards, including, flooding, wildfire, and drought. Modern, well-constructed buildings built to code are more resistant to earthquake shaking. However, new buildings can be severely damaged if built upon areas susceptible to soil liquefaction. The risk of flooding in future development should be minimized by the floodplain management programs of the county and its jurisdictions, if properly enforced. Vulnerability to wildfire will increase with more development in north western part of the county and will increase the fire protection challenges in the area. Lastly, as the population grows, so do the water needs for household, commercial, industrial, recreational, and agricultural uses. Vulnerability to drought will increase with these growing water needs.

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SECTION 5.0: PLAN EVALUATION AND MAINTENANCE

The strategies presented are deemed appropriate and effective by recommendation of the Yolo Operational Area Hazard Mitigation Steering Committee, senior management of local and tribal governments and public agencies, and individual organizations and groups that have participated in its creation, or reviewed the end product.

5.1 PLAN ADOPTION

Upon submission to the California Office of Emergency Services (CalOES) for review, and subsequent approval by the Federal Emergency Management Agency (FEMA), the approved Hazard Mitigation Plan will be presented to local and tribal governments, and public agency executive governance and leadership for formal adoption. As appropriate, adopted plans will then be incorporated into local general plans for integration into organizational policy.

5.2 PLAN MONITORING

The process of hazard mitigation does not end with the completion, approval, and adoption of this plan. Within the lifespan of this document (five years), participating local and tribal governments, in conjunction with community-based organizations, will ensure that the mitigation goals and strategies identified are monitored, that plan administration will continue under a collaborative and cooperative umbrella, and that the document itself will be properly maintained.

The Yolo County Office of Emergency Services, as lead coordination agency for hazard mitigation planning within the Yolo OA, and will assist and support the ongoing collaborative efforts of local and tribal governments, through the established Hazard Mitigation Steering Committee. Specific plan maintenance activities may include:

- Distribution of the Plan to all interested parties, including both written and digital formats
- Facilitation of regular Hazard Mitigation Steering Committee Meetings
- Monitoring of OA mitigation project activities and dissemination of status reports
- Generation of reports relative to plan status, project management, and revision updates to executive leadership
- Preparations for plan eventual revision and updating

5.3 PLAN EVALUATION

Upon approval and adoption by participating local and tribal government entities within the Yolo Operational Area, the prioritized mitigation strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

The mitigation strategies represented and adopted within this plan are recommendations only, and must be approved and funded in order to be implemented as official mitigation solutions. Ultimately, it is the responsibility of jurisdictional and agency officials within the Yolo Operational Area to undertake project implementation based upon identified mitigation strategies, funding availability, and local need when it arises. The Yolo County Office of Emergency Services will meet with the Hazard Mitigation Steering Committee to evaluate the plan after each update meeting.

5.4 PLAN UPDATE

During the five year update cycle, the Yolo County Office of Emergency Services will hold tri-annual update meetings with the Hazard Mitigation Steering Committee and local stakeholders to discuss revisions to the plan. The Yolo County Office of Emergency Services will continue to hold public meetings after the first and third update meetings annually, and will continue to invite public participation in the update process via updated public surveys. The formal update process for each iteration of the Yolo County Operational Area Hazard Mitigation Plan will begin approximately 22 months before the expiration date, approximately March of the year before the plan expiration date in December. The Yolo County Office of Emergency Services will initiate the update process for the plan. They complete the entire plan in house. The Yolo County Office of Emergency Services will apply for FEMA PDM funding two fiscal year cycles before the plan is set to expire in order to help pay for staff time to update the plan. Any FEMA HMGP funding that falls in that time slot will also be applied for.

APPENDIX A: DOCUMENTATION OF THE PLANNING PROCESS



Yolo County Office of Emergency Services
**2018 Yolo County Hazard Mitigation
Plan (HMP)
Kickoff Meeting**



Agenda
March 17, 2017
9-11 a.m.

- I. Welcome & Introductions 9:00-9:10
- II. Overview of Hazard Mitigation 9:10-9:30
- III. Timeline of Yolo County HMP Update Process 9:30-9:40
- IV. Presentation – Victoria LaMar-Haas CalOES 9:40-10:00
- V. Review/Discussion of HMP Risk Assessment and Hazards 10:00-10:20
- VI. Review/Discussion of HMP Goals 10:20-10:40
- VII. Announcement of Steering Committee 10:40-10:50
- VIII. Expectations and Next Steps 10:50-11:00
- IX. Adjournment

From: David Block
To: Leslie Lindbo; Rick Sander; Karen Avara; Moushumi Hasan; Dena Humphrey; Kevin Yarris; Mindi Nunes; John Young; Beth Gabor; Tom Lopez; Jill Cook; Kristin Weivoda; Ed Short; Taro Echiburu; Dennis Chambers; Sharman Wood; "tohalloran@ycfwcd.org"; "Rodriguez, Richard"; Patrick Blacklock; "mark.brooks@cityofwoodland.org"; "jtenney@cityofdavis.org"; "Darren Pytel"; "hsstevens@ucdavis.edu"; "Broussard, Jennifer - WHC"; "Jeremy Warren"; "cantelmestev@sacoe.org"; "doytel@davispd.org"; "tracy.jensen@cityofwinters.org"; "Janice Phillips"; "ryega@yolo.courts.ca.gov"; "brenna@brennahowell.com"; "dan.bellini@cityofwoodland.org"; "psp6@pge.com"; Kyle Noderer; "jholt@ych.ca.gov"; "letgarcia@ucdavis.edu"; "bryani@cityofwestsacramento.org"; "marvio.rodolfa@cityofwinters.org"; "lbaker@ych.ca.gov"; "tbassett@yctd.org"; "Lamoureux, Eric@CalOES"; "intrauemicht@ucdavis.edu"; Lance Faile; "gfredericksen@vochadehe-nsn.gov"; Barry Burns; "Johnson, Corey T."; "Rick Martinez"; "daniel.maguire@cityofwinters.org"; "Brett Hancock"; "Jill Blackwelder Parker (jblack@ucdavis.edu)"; "Alberto Castillo"; "rdmartinez@ucdavis.edu"; "cstokes@ucdavis.edu"; "Davis, Patricia"; "Mike Luken (MLuken@yctd.org)"; "Howell, Brenna"; "Ton Phan"; "Juchniewicz, Matthew (Matthew.Juchniewicz@ycoe.org)"; "Elvy.Votino@CalOES.ca.gov"; "Leah Goodwin"; "Hammond, Drew@CalOES"; "LaMar-Haas, Victoria@CalOES"; "Christine Engel"; "Greta Galindo"; "greg.meyer@cityofwoodland.org"; "ken.hiatt@cityofwoodland.org"; "jenna.moser@cityofwinters.org"; "gene.ashdown@cityofwinters.org"; Nancy Mills; "carol.scianna@cityofwinters.org"; "eric.lucem@cityofwinters.org"; "Chelweg@cityofdavis.org"; "BClarke@cityofdavis.org"; "JBest@cityofdavis.org"; "GMahoney@cityofdavis.org"; "afeeney@cityofdavis.org"; Dana Carey; "Kristi Pearson"; Panos Kokkas; "Nicole.wilson@caloes.ca.gov"; "alison.kearns@fema.dhs.gov"; Brian Lynch
Subject: Save the Date for the 2018 Yolo County Hazard Mitigation Plan Kick-Off Meeting
Start: Friday, March 17, 2017 9:00:00 AM
End: Friday, March 17, 2017 11:00:00 AM
Location: Yolo County Housing Authority - 147 W Main Street, Woodland, CA 95695

Good afternoon partners!

We cordially invite you to join us for the official 2018 Yolo County Hazard Mitigation Plan (HMP) Kick-Off Meeting. This meeting will commence our formal update of the current 2013 HMP, which can be found at: <http://www.yolocounty.org/government/office-of-emergency-services/reports-and-publications>

Additional information including an agenda and location will be coming soon.

Thank you for your continued participation in Emergency Management, and we look forward to seeing you in March!

David M. Block, M.P.A.
Emergency Services Planner
County of Yolo - Office of Emergency Services
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Yolo County Office of Emergency Services
2018 Yolo County Hazard Mitigation Plan (HMP) Kickoff Meeting
147 W Main, WOODLAND, CA 95695



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NAME

AGENCY/DEPARTMENT

E-MAIL

MEETING – Sign-in Sheet
March 17, 2017

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Becky Barnier	Woodland Fire	becky.barnier@cityofwoodland.org



Yolo County Office of Emergency Services
2018 Yolo County Hazard Mitigation Plan (HMP) Kickoff Meeting
147 W Main, WOODLAND, CA 95695



MEETING – Sign-in Sheet

March 17, 2017

(PLEASE PRINT CLEARLY)

NAME	AGENCY/DEPARTMENT	E-MAIL
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Kristin Siske	yfcawcd	Ksiske@yfcawcd.org



147 W Main, WOODLAND, CA 95695



MEETING – Sign-in Sheet

March 17, 2017

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Yolo County Office of Emergency Services
2018 Yolo County Hazard Mitigation Plan (HMP) Kickoff Meeting
147 W Main, WOODLAND, CA 95695



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NAME

AGENCY/DEPARTMENT

E-MAIL

MEETING – Sign-in Sheet

March 17, 2017

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Brian Lynch	City of Davis FD	blynch@cityof-davis.org



Yolo County Office of Emergency Services
HMP Steering Committee Meeting #1
147 W Main, WOODLAND, CA 95695



MEETING – Sign-in Sheet
April 6, 2017

(PLEASE PRINT CLEARLY)

NAME	AGENCY/DEPARTMENT	E-MAIL
Betty Ramirez Betty Johnson	WFD WSPD	Betty.Ramirez@cityof woodland.org bettyjohnson@wspd.net
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Brian Lynch	CITY OF DAVIS	brylan@cityofDavis.org
Shawn Finley David M. Block	Yolo Delta F.D. Yolo County OES	SKINNEY@yoladelta-usb.org DAVID.BLOCK@yolocounty.org
DANA M. CAREY	Yolo County OES	DANA.CAREY@yolocounty.org



**Yolo County Office of Emergency Services
2018 Yolo County Hazard Mitigation
Plan (HMP)
Update Meeting #2**



Agenda
August 17, 2017
11 a.m. - 12 p.m.

- I. Welcome & Introductions 11:00-11:10**
- II. 2018 Yolo County HMP Status Update 11:10-11:20**
- III. Mitigation Tools (Hazardus, Emergency Management Accreditation Program, GIS Mitigation App) 11:20-11:30**
- IV. Presentation – Xing Liu - FEMA 11:30-11:40**
- V. Overview of FEMA Pre-Disaster Mitigation and Flood Mitigation Assistance Grant Programs and Submitted Projects 11:40-11:50**
- VI. Expectations and Next Steps 11:50-12:00**
- VII. Adjournment**

From: [David Block](#)
To: [Rick Sander](#); [Karen Avara](#); [Moushumi Hasan](#); [Dena Humphrey](#); [Kevin Yarris](#); [Mindi Nunes](#); [John Young](#); [Beth Gabor](#); [Tom Lopez](#); [Jill Cook](#); [Kristin Weivoda](#); [Taro Echiburu](#); [Dennis Chambers](#); ["tohalloran@ycfwcd.org"](#); ["ksicke@ycfwcd.org"](#); ["Rodriguez, Richard"](#); [Patrick Blacklock](#); ["mark.brooks@cityofwoodland.org"](#); ["jtenney@cityofdavis.org"](#); ["Darren Pytel"](#); ["jsstevens@ucdavis.edu"](#); ["Broussard, Jennifer - WHC"](#); ["Jeremy Warren"](#); ["cantelmesteva@sacoe.org"](#); ["dpytel@davispd.org"](#); ["tracy.jensen@cityofwinters.org"](#); ["Janice Phillips"](#); ["rvega@yolo.courts.ca.gov"](#); ["brenna@brennahowell.com"](#); ["psp6@pge.com"](#); ["Kyle Noderer"](#); ["iholt@ych.ca.gov"](#); ["letoarcia@ucdavis.edu"](#); ["bryani@cityofwestsacramento.org"](#); ["marjo.rodolfa@cityofwinters.org"](#); ["lbaker@ych.ca.gov"](#); ["tbassett@yctd.org"](#); ["Lamoureux, Eric@CalOES"](#); ["ntrauernicht@ucdavis.edu"](#); ["Lance Faille"](#); ["gfriedricksen@yochadehe-nsn.gov"](#); ["Barry Burns"](#); ["Johnson, Corey T."](#); ["Rick Martinez"](#); ["daniel.maguire@cityofwinters.org"](#); ["Brett Hancock"](#); ["Alberto Castillo"](#); ["rdmartinez@ucdavis.edu"](#); ["cstokes@ucdavis.edu"](#); ["Davis, Patricia"](#); ["Mike Luken \(MLuken@yctd.org\)"](#); ["Howell, Brenna"](#); ["Ton Phan"](#); ["Juchniewicz, Matthew \(Matthew.Juchniewicz@ycos.org\)"](#); ["Elsy_Votino@CalOES.ca.gov"](#); ["Leah Goodwin"](#); ["Hammond, Drew@CalOES"](#); ["LaMar-Haas, Victoria@CalOES"](#); ["Christine Engel"](#); ["Greta Galindo"](#); ["greg.meyer@cityofwoodland.org"](#); ["ken.hiatt@cityofwoodland.org"](#); ["jenna.moser@cityofwinters.org"](#); ["gene.ashdown@cityofwinters.org"](#); ["Nancy Mills"](#); ["carol.scianna@cityofwinters.org"](#); ["eric.lucem@cityofwinters.org"](#); ["Chelweg@cityofdavis.org"](#); ["BClarke@cityofdavis.org"](#); ["JBest@cityofdavis.org"](#); ["GMahoney@cityofdavis.org"](#); ["afeeney@cityofdavis.org"](#); ["Dana Carey"](#); ["Kristi Pearson"](#); ["Panos Kokkas"](#); ["Nicole.wilson@caloes.ca.gov"](#); ["alison.keams@fema.dhs.gov"](#); ["Brian Lynch"](#); ["sgryczko@cityofdavis.org"](#); ["bmickelson@cityofdavis.org"](#); ["Walton, Megan@CalOES"](#); ["Nicole.wilson@caloes.ca.gov"](#); ["Recky Ramirez"](#); ["Liu, Xing"](#); ["Jennifer Lee"](#)
Subject: Yolo County Hazard Mitigation Plan Update Meeting #2
Date: Thursday, July 13, 2017 2:55:25 PM
Attachments: [Yolo County HMP 2018 Update Meeting .pdf](#);
[PDMFactSheet FY 2017 508.pdf](#);
[FY 2017 PDM NOFO Final.pdf](#);
[FMAFactSheet FY 2017 508.pdf](#);
[FY 2017 FMA NOFO Final.pdf](#);
[NOI Instructions 2017 PDM-FMA-FINAL v1.pdf](#)

Good afternoon partners!

We cordially invite you to attend our second update meeting for the 2018 Yolo County Hazard Mitigation Plan (HMP). A calendar invite will follow; the meeting is going to be held on August 17th after the Operational Area Coordinating Group Meeting and before the Yolo County Mitigation Discovery Meeting hosted by FEMA at 1, so we invite you to spend the whole day with us! Please see the attached agenda, as well as information on the Pre-Disaster Mitigation Grant Program and Flood Mitigation Assistance Grant program funding for FY 2017 that was just released. Notice of Interests for both programs are due **August 4th** and if you have any question please let our office know. We look forward to seeing you all in August!

V/R,

David M. Block, M.P.A

Emergency Services Planner
County of Yolo - Office of Emergency Services
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Yolo County Office of Emergency Services
2018 Yolo County Hazard Mitigation Plan (HMP) Update Meeting #2
147 W Main, WOODLAND, CA 95695



MEETING – Sign-in Sheet
August 17, 2017

(PLEASE PRINT CLEARLY)

NAME	AGENCY/DEPARTMENT	E-MAIL
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Alfredo Castillo	Yolo County Housing	acastilo@yck.ca.gov
Dale Cummings	CITY OF DAVIS	Dcumming@cityof-davis.org
Kyle Nakano	Cal OES, Island Region	kulenakano@caloes.org
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Yolo County Office of Emergency Services
2018 Yolo County Hazard Mitigation Plan (HMP) Update Meeting #2
147 W Main, WOODLAND, CA 95695



(PLEASE PRINT CLEARLY)

MEETING -- Sign-in Sheet
August 17, 2017

NAME	AGENCY/DEPARTMENT	E-MAIL
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Kristin Sike	YCS	
Becky Ramirez	WFD	
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Maryann Harrin	FEMA/lead	maryann.harrin@oagilvy.com



Yolo County Office of Emergency Services
**2018 Yolo County Hazard Mitigation
Plan (HMP)
Update Meeting #3**



Agenda
November 7, 2017
10 a.m. - 11 a.m.

- I. Welcome & Introductions 10:00-10:10
- II. 2018 Yolo County HMP Status Update 10:10-10:20
- III. Review of Project Applications Submitted for 2017 FEMA Hazard
Mitigation Assistance 10:20-10:30
- IV. Review of Current Project List 10:30-10:40
- V. Community Rating System Presentation – California Department of
Water Resources 10:40-10:50
- VI. Expectations and Next Steps 10:50-11:00
- VII. Adjournment

From: David Block
To: Rick Sander; Karen Avara; Moushumi Hasan; Dena Humphrey; Kevin Yarris; Mindi Nunes; John Young; Beth Gabor; Tom Lopez; Jill Cook; Kristin Weivoda; Tara Echiburu; Dennis Chambers; "tohalloran@ycfwcd.org"; "ksicke@ycfwcd.org"; "Rodriguez, Richard"; Patrick Blacklock; "mark.brooks@cityofwoodland.org"; "jtenney@cityofdavis.org"; "Darren Pytel"; "jsstevens@ucdavis.edu"; "Broussard, Jennifer - WHC"; "Jeremy Warren"; "cantelmesteva@sacoe.org"; "dpytel@davispd.org"; "tracy.jensen@cityofwinters.org"; "Janice Phillips"; "rvega@yolo.courts.ca.gov"; "brenna@brennahowell.com"; "psp6@pge.com"; Kyle Noderer; "iholt@ych.ca.gov"; "lito@ucdavis.edu"; "bryani@cityofwestsacramento.org"; "maria.rodolfo@cityofwinters.org"; "lbaker@ych.ca.gov"; "tbassett@yctd.org"; "Lamoureux, Eric@CalOES"; "ntrauernicht@ucdavis.edu"; Lance Faille; "gfriedericksen@yochadehe-nsn.gov"; Barry Burns; "Johnson, Corey T."; "Rick Martinez"; "daniel.maguire@cityofwinters.org"; "Brett Hancock"; "Alberto Castillo"; "rdmartinez@ucdavis.edu"; "cstokes@ucdavis.edu"; "Davis, Patricia"; "Mike Luken (MLuken@yctd.org)"; "Howell, Brenna"; "Ton Phan"; "Juchniewicz, Matthew (Matthew.Juchniewicz@ycos.org)"; "Elsy_Votino@CalOES.ca.gov"; Leah Goodwin; "Hammond, Drew@CalOES"; "LaMar-Haas, Victoria@CalOES"; "Christine Engel"; "Greta Galindo"; "greg.meyer@cityofwoodland.org"; "ken.hiatt@cityofwoodland.org"; "jenna.moser@cityofwinters.org"; "gene.ashdown@cityofwinters.org"; Nancy Mills; "carol.scianna@cityofwinters.org"; "eric.lucem@cityofwinters.org"; "Chelweg@cityofdavis.org"; "BClarke@cityofdavis.org"; "JBest@cityofdavis.org"; "GMahoney@cityofdavis.org"; "afeeney@cityofdavis.org"; Dana Carey; "Kristi Pearson"; Panos Kokkas; "Nicole.wilson@caloes.ca.gov"; "alison.keams@fema.dhs.gov"; "Brian Lynch"; "sgryczko@cityofdavis.org"; "bmickelson@cityofdavis.org"; "Walton, Megan@CalOES"; "Nicole.wilson@caloes.ca.gov"; "Becky Ramirez"; "Liu, Xing"; Jennifer Lea; "Mike Webb"
Subject: Yolo County Hazard Mitigation Plan Update Meeting #3
Date: Monday, October 02, 2017 9:18:08 AM
Attachments: Yolo County HMP 2018 Update Meeting #3 Agenda.pdf
Yolo County Mitigation Project Worksheet.docx

Good Morning Partners!

We cordially invite you to attend our third update meeting for the 2018 Yolo County Hazard Mitigation Plan (HMP). A calendar invite will follow; the meeting is going to be held on Tuesday, November 7th. We will be reviewing progress made with the update thus far, as well as discussing the mitigation project list for the Yolo County Operational Area. We will go over projects that have been submitted for FEMA Hazard Mitigation Assistance funding this year, as well as going over any new projects that we will be adding. Please use the attached project worksheet to identify any new mitigation projects that you would like to see added into the Hazard Mitigation Plan, and send them to me before the meeting. As a reminder, a project will not be eligible for FEMA Hazard Mitigation Assistance grant money (including the Hazard Mitigation Grant Program after a presidentially declared disaster) if it is not included in the plan. A great FEMA resource for mitigation project ideas can be found at:

<https://www.fema.gov/media-library/assets/documents/30627>

The California Department of Water Resources will be giving a presentation on the Community Rating System and how it can benefit Yolo County. Information on the National Flood Insurance Program and CRS can be found at:

<https://www.fema.gov/national-flood-insurance-program-community-rating-system>

Thank you for your continued participation in Emergency Management. Please see the attached agenda, and we look forward to seeing you in November!

David M. Block, M.P.A.

Emergency Services Planner
County of Yolo - Office of Emergency Services
625 Court Street, Room 202
Woodland, CA 95695



Yolo County Office of Emergency Services
2018 Yolo County Hazard Mitigation Plan (HMP) Update Meeting #3
147 W Main, WOODLAND, CA 95695



(PLEASE PRINT CLEARLY)

MEETING – Sign-in Sheet
November 7, 2017

NAME	AGENCY/DEPARTMENT	E-MAIL
Brenna Hurrell	COVS	brenna@brennahurrell.com
Kael Bayha	CA Deer	kbaeha@water.ca.gov
TOM HARRIS	DAVIS PD	thendavis@davis.ca.gov
Scott Doolittle	Yolo County Building Division	scottdoolittle@yolocounty.gov
Tom Bates	Yolo County General Supv.	tom.bates@yolocounty.org
Ross Cain	CITY OF DAVIS/UTAH FORESTRY	RCAIN@CITYOFDAVIS.CA.GOV
Moushumi Hasan	Comm. Serv. Dept.	moushumi.hasan@yobawater.org
Van Nguyen	CITY of Davis	van.nguyen@cityofwater.org
Albert Castillo	Yolo County Housing	acastillo@yolo.ca.gov
Jonke Liriglio	City of Davis	jliriglio@cityofwater.org
North Jones	City of Davis	Mjones@cityofwater.org
Ray Lee	DUR-NERO	Ray.Lee@water.ca.gov



147 W Main, WOODLAND, CA 95695

November 7, 2017

AGENCY/DEPARTMENT

[illegible]



COUNTY OF YOLO

Office of the County Administrator

Patrick S. Blacklock
County Administrator

Beth Gabor
Manager of Public Affairs

625 Court Street, Room 204 • Woodland, CA 95695
(530) 666-8195 • FAX (530) 666-8193
www.yolocounty.org

FOR IMMEDIATE RELEASE
TBD

Contact: Beth Gabor, Manager of Public Affairs
(530) 666-8042 [w] • (530) 219-8464 [c]

Hazard Mitigation Survey and Public Meeting

(Woodland, CA) – The Yolo County Office of Emergency Services is seeking your input! Every five years, the Yolo County Hazard Mitigation Plan is updated and submitted to the Federal Emergency Management Agency (FEMA). The plan addresses threats from potential hazards and identifies possible strategies to reduce impacts. Yolo County, the cities of Davis, West Sacramento, Winters, and Woodland, the Yocha Dehe Wintun Nation, and Yolo County Housing are currently creating a combined multi-jurisdictional plan.

As part of the 2018 plan update process, the public is encouraged to provide input by completing a survey to identify the community's concerns about hazards. The attached survey can also be found on the Office of Emergency Services webpage under the General Government tab at www.yolocounty.org and printed copies are available at all Yolo County Library branches.

The public is also encouraged to attend a public meeting where information about the plan, including the hazards identified, will be discussed. Please feel free to fill out and bring the completed survey to the meeting.

The first meeting will be held:

Friday, July, 21, 2017, 6 pm – 7pm
Community Room
Gonzalez Building
137 North Cottonwood Street, Woodland

For more information, please contact the Yolo County Office of Emergency Services at (530) 406-4930 or email: oes@yolocounty.org.

###

7/21/2017

Hazard Mitigation Survey scheduled

Daily Democrat (<http://www.dailydemocrat.com>)

Hazard Mitigation Survey scheduled

By Democrat staff

Thursday, July 6, 2017

The Yolo County Office of Emergency Services is seeking advice from the public.

According to Yolo County spokeswoman Beth Gabor, every five years, the Yolo County Hazard Mitigation Plan is updated and submitted to the Federal Emergency Management Agency.

"The plan addresses threats from potential hazards and identifies possible strategies to reduce impacts," Gabor states. "Yolo County, the cities of Davis, West Sacramento, Winters, and Woodland, the Yocha Dehe Wintun Nation, and Yolo County Housing are currently creating a combined multi-jurisdictional plan."

As part of the 2018 plan update process, the public is encouraged to provide input by completing a survey to identify the community's concerns about hazards, Gabor reported. "The survey can be found on the Office of Emergency Services webpage under the General Government tab at www.yolocounty.org and printed copies are also available at all Yolo County Library branches.

Additionally, the public is encouraged to attend a meeting where information about the plan, including the hazards identified, will be discussed. Please feel free to fill out and bring the completed survey to the meeting.

The first meeting is scheduled from 6 to 7 p.m., Friday, July 21, in the community room of the Gonzalez Building, 137 N. Cottonwood St., Woodland.

URL: <http://www.dailydemocrat.com/general-news/20170706/hazard-mitigation-survey-scheduled>

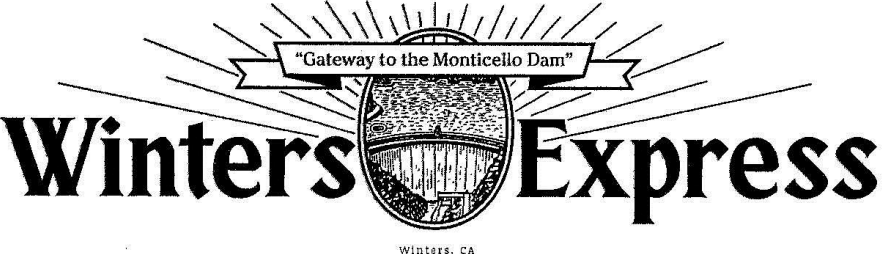
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<http://www.dailydemocrat.com/general-news/20170706/hazard-mitigation-survey-scheduled&template=printart>

1/1

Public input sought on hazard mitigation survey

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Winters Express

Winters, CA

Local News

Public input sought on hazard mitigation survey

By Debra DeAngelo July 13, 2017

The Yolo County Office of Emergency Services is seeking public input on the Yolo County Hazard Mitigation Plan. Every five years, the plan is updated and submitted to the Federal Emergency Management Agency (FEMA). The plan addresses threats from potential hazards and identifies possible strategies to reduce impacts.

Yolo County, the cities of Davis, West Sacramento, Winters and Woodland, the Yocha Dehe Wintun Nation and Yolo County Housing are currently creating a combined multi-jurisdictional plan.

As part of the 2018 plan update process, the public is encouraged to provide input by completing a survey to identify the community's concerns about hazards. The survey can be found on the Office of Emergency Services webpage under the General Government tab at www.yolocounty.org and printed copies are also available at all Yolo County Library branches.

Additionally, the public is encouraged to attend a meeting where information about the plan, including the hazards identified, will be discussed. Attendees can fill out the survey and bring it to the meeting.



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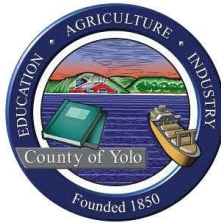
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The first meeting will be held on Friday, July 21, 6-7 p.m., in the community room of the Gonzalez Building, 137 North Cottonwood Street in Woodland

<https://www.wintersexpress.com/local-news/public-input-sought-on-hazard-mitigation-survey/>



COUNTY OF YOLO

Office of the County Administrator

Patrick S. Blacklock
County Administrator

Beth Gabor
Manager of Operations & Strategy

625 Court Street, Room 202 • Woodland, CA 95695
(530) 666-8042 • FAX (530) 668-4029
www.yolocounty.org

FOR IMMEDIATE RELEASE
November 17, 2017

Contact: Beth Gabor, Public Information Officer
(530) 666-8042 [w] • (530) 219-8464 [c]

Hazard Mitigation Survey and Public Meeting #2

(Woodland, CA) – The Yolo County Office of Emergency Services is seeking community input on threats from hazards via a survey and a public meeting.

Every five years, the county Hazard Mitigation Plan is updated and submitted to the Federal Emergency Management Agency (FEMA). The plan addresses threats from potential hazards and identifies possible strategies to reduce impacts. Yolo County's multi-jurisdictional plan is developed by the county, the cities of Davis, West Sacramento, Winters and Woodland, the Yocha Dehe Wintun Nation and Yolo County Housing.

As part of the 2018 plan update, the public is encouraged to provide input by completing a survey to identify the community's concerns about hazards. The survey can be found on: www.yolocounty.org/OES and printed copies are available at all Yolo County library branches.

The public is also invited to attend the second of two public meetings where information about the plan, including the hazards identified, will be discussed. Surveys will be collected during this meeting as well. The meeting will be held:

Friday, December 15, 6:00 to 7:00 p.m.
City of Davis Community Chambers
City Hall
23 Russell Boulevard
Davis

For more information about the hazard mitigation planning process, contact the Yolo County Office of Emergency Services at (530) 406-4930 or email: oes@yolocounty.org.

###



2018 Yolo County Hazard Mitigation Plan Survey

This survey is designed to help the Yolo County Office of Emergency Services identify the community's concerns about natural and human-caused hazards, to better understand community needs in reducing risk and loss from such hazards. It should be completed by an adult, preferably the homeowner or the head of the household. Please take a few minutes to complete this survey. All individual responses are strictly confidential, and are for research purposes only.

This survey can also be found online at www.yolocounty.org

1. Zip Code 95694 Community Name or Location Winters Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☐ or rent ☒ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:
0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- | | |
|---|--|
| ☒ Flood | ☒ Agricultural Pests/Diseases |
| ☒ Levee Failure | ☒ Pandemic/Epidemic |
| ☒ Dam Failure | ☒ HazMat Incident - Radiological |
| ☒ Severe Storm/Hail | ☒ HazMat Incident - Chemical |
| ☒ High Wind | ☒ HazMat Incident - Biological |
| ☒ Extreme Heat | ☒ Transportation Accident - Airplane |
| ☒ Freeze | ☒ Transportation Accident - Train |
| ☒ Fog | ☒ Transportation Accident - Vehicle |
| ☒ Tornado | ☒ Transportation Accident - Ship |
| ☒ Volcano | ☒ Power/Utility Failure |
| ☒ Earthquake | ☒ Telecommunications (IT) Failure |
| ☒ Landslide | ☒ Civil Disturbance |
| ☒ Land Subsidence | ☒ Terrorism |
| ☒ Drought | ☒ Urban Conflagration (Fire) |
| ☒ Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☒ Newspaper
☐ Television
☐ Radio
☒ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☒ Mail
☐ Fire Department
☒ Website
☒ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☒ Public meetings
☐ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☒ Not at all ☐ Somewhat ☒ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, **have not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☒	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☒	☐	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☒	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☐	☒	☐	☐	☐
Protecting natural environment	☐	☒	☐	☐	☐
Protecting historical / cultural landmarks	☐	☒	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☒	☐	☐	☐
Protecting and reducing damage to utilities	☐	☒	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☒	☐	☐	☐

THANK YOU for providing this information. Please return this survey to any of the following locations:

- Any branch of the Yolo County Library
- Yolo County Housing Central Office

Or return by mail to:
Yolo County OES, 625 Court Street, Room 202, Woodland, CA 95695

E-mail Your Form

2018 Yolo County Hazard Mitigation Plan Survey

This survey is designed to help the Yolo County Office of Emergency Services identify the community's concerns about natural and human-caused hazards, to better understand community needs in reducing risk and loss from such hazards. It should be completed by an adult, preferably the homeowner or the head of the household. Please take a few minutes to complete this survey. All individual responses are strictly confidential, and are for research purposes only.

This survey can also be found online at www.yolocounty.org

1. Zip Code 95691 Community Name or Location Summer Library Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☐ or rent ☒ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

- | | |
|----------------------------|---|
| <u>3</u> Flood | <u>3</u> Agricultural Pests/Diseases |
| <u>3</u> Levee Failure | <u>1</u> Pandemic/Epidemic |
| <u>3</u> Dam Failure | <u>1</u> HazMat Incident – Radiological |
| <u>1</u> Severe Storm/Rain | <u>1</u> HazMat Incident – Chemical |
| <u>1</u> High Wind | <u>1</u> HazMat Incident – Biological |
| <u>2</u> Extreme Heat | <u>0</u> Transportation Accident – Airplane |
| <u>0</u> Freeze | <u>0</u> Transportation Accident – Train |
| <u>1</u> Fog | <u>3</u> Transportation Accident – Vehicle |
| <u>0</u> Tornado | <u>0</u> Transportation Accident – Ship |
| <u>0</u> Volcano | <u>0</u> Power/Utility Failure |
| <u>3</u> Earthquake | <u>1</u> Telecommunications (IT) Failure |
| <u>0</u> Landslide | <u>3</u> Civil Disturbance |
| <u>0</u> Land Subsidence | <u>0</u> Terrorism |
| <u>0</u> Drought | <u>0</u> Urban Conflagration (Fire) |
| <u>1</u> Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☒ Newspaper
☒ Television
☒ Radio
☒ Cell Phone

Other methods:

- ☒ Schools
☒ Outdoor advertising (billboards, etc.)
☒ Books

- ☒ Mail
☒ Fire Department
☒ Website
☒ Fact sheet/brochure
☒ Church/religious organization
☒ Employer
☒ Public meetings
☒ University or research institution
☒ Utility bills
☒ Other Restaurants, Shopping Malls
Library

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☐ Moderately ☒ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, **have not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☒	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☒	☐	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☒	☐	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☒	☐	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☒	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

THANK YOU for providing this information. Please return this survey to any of the following locations:

- Any branch of the Yolo County Library
- Yolo County Housing Central Office

Or return by mail to:

Yolo County OES, 625 Court Street, Room 202, Woodland, CA 95695

2018 Yolo County Hazard Mitigation Plan Survey

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95635 Community Name or Location Woodhewer Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- | | |
|----------------------------|--|
| <u>3</u> Flood | <u>1</u> Agricultural Pests/Diseases <u>Fire</u> |
| <u>2</u> Levee Failure | <u>1</u> Pandemic/Epidemic |
| <u>1</u> Dam Failure | <u>1</u> HazMat Incident – Radiological |
| <u>2</u> Severe Storm/Rain | <u>1</u> HazMat Incident – Chemical |
| <u>1</u> High Wind | <u>1</u> HazMat Incident – Biological |
| <u>0</u> Extreme Heat | <u>1</u> Transportation Accident - Airplane |
| <u>0</u> Freeze | <u>1</u> Transportation Accident - Train |
| <u>0</u> Fog | <u>2</u> Transportation Accident - Vehicle |
| <u>0</u> Tornado | <u>0</u> Transportation Accident - Ship |
| <u>0</u> Volcano | <u>1</u> Power/Utility Failure |
| <u>1</u> Earthquake | <u>1</u> Telecommunications (IT) Failure |
| <u>0</u> Landslide | <u>1</u> Civil Disturbance |
| <u>1</u> Land Subsidence | <u>1</u> Terrorism |
| <u>1</u> Drought | <u>0</u> Urban Conflagration (Fire) |
| <u>1</u> Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☐ Radio
☐ Cell Phone

- ☐ Mail
☐ Fire Department
☒ Website
☐ Fact sheet/brochure
☐ Church/religious organization

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☒ Employer
☐ Public meetings
☐ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?

☐ Not at all ☐ Somewhat ☐ Moderately ☒ Very much

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Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☒	☐	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☒	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☒	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☐	☒	☐	☐	☐
Protecting natural environment	☐	☒	☐	☐	☐
Protecting historical / cultural landmarks	☐	☒	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☒	☐	☐	☐
Protecting and reducing damage to utilities	☐	☒	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

THANK YOU for providing this information. Please return this survey to any of the following locations:

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Or return by mail to:

Yolo County OES, 625 Court Street, Room 202, Woodland, CA 95695

2018 Yolo County Hazard Mitigation Plan Survey

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95816 Community Name or Location SACRAMENTO Within city limits? Y ☐ N ☐
Do you have internet access? Y ☐ N ☐ Do you own ☐ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- | | |
|--|---|
| ☐ Flood | ☐ Agricultural Pests/Diseases |
| ☐ Levee Failure | ☒ Pandemic/Epidemic |
| ☐ Dam Failure | ☐ HazMat Incident – Radiological |
| ☒ Severe Storm/Rain | ☐ HazMat Incident – Chemical |
| ☐ High Wind | ☐ HazMat Incident – Biological |
| ☐ Extreme Heat | ☐ Transportation Accident - Airplane |
| ☐ Freeze | ☐ Transportation Accident - Train |
| ☒ Fog | ☐ Transportation Accident - Vehicle |
| ☐ Tornado | ☒ Transportation Accident - Ship |
| ☒ Volcano | ☒ Power/Utility Failure |
| ☐ Earthquake | ☐ Telecommunications (IT) Failure |
| ☐ Landslide | ☐ Civil Disturbance |
| ☐ Land Subsidence | ☐ Terrorism |
| ☐ Drought | ☒ Urban Conflagration (Fire) |
| ☒ Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☒ Radio
☐ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☐ Mail
☐ Fire Department
☐ Website
☐ Fact sheet/brochure
☒ Church/religious organization
☐ Employer
☐ Public meetings
☐ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☒ Not at all ☐ Somewhat ☐ Moderately ☐ Very much
5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☒	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☐	☒	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☐	☐	☒
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☒	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☐	☐	☒	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☐	☐	☐	☒	☐
Preventing development in hazard areas	☐	☐	☐	☒	☐
Protecting natural environment	☐	☐	☐	☒	☐
Protecting historical / cultural landmarks	☐	☐	☐	☒	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☐	☒	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☒	☐	☐	☐

THANK YOU for providing this information. Please return this survey to any of the following locations:

- Any branch of the Yolo County Library
- Yolo County Housing Central Office

Or return by mail to:
Yolo County OES, 625 Court Street, Room 202, Woodland, CA 95695

2018 Yolo County Hazard Mitigation Plan Survey

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95695 Community Name or Location Woodlana Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

- | | |
|--------------------------------------|---|
| <u>3</u> Flood | ☐ Agricultural Pests/Diseases |
| <u>3</u> Levee Failure | ☐ Pandemic/Epidemic |
| ☐ Dam Failure | ☐ HazMat Incident – Radiological |
| <u>2</u> Severe Storm/Rain | ☐ HazMat Incident – Chemical |
| ☐ High Wind | ☐ HazMat Incident – Biological |
| <u>2</u> Extreme Heat | ☐ Transportation Accident - Airplane |
| ☐ Freeze | ☐ Transportation Accident - Train |
| ☐ Fog | ☐ Transportation Accident - Vehicle |
| ☐ Tornado | ☐ Transportation Accident - Ship |
| ☐ Volcano | <u>2</u> Power/Utility Failure |
| ☐ Earthquake | <u>3</u> Telecommunications (IT) Failure |
| ☐ Landslide | ☐ Civil Disturbance |
| <u>2</u> Land Subsidence | ☐ Terrorism |
| ☐ Drought | ☐ Urban Conflagration (Fire) |
| ☐ Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☐ Radio
☒ Cell Phone

- ☐ Mail
☐ Fire Department
☒ Website
☐ Fact sheet/brochure
☐ Church/religious organization
☐ Employer

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☐ Public meetings
☐ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☐ Moderately ☒ Very much
5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☒	☐	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☒	☐	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☒	☐	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☐	☒	☐	☐	☐
Protecting natural environment	☐	☒	☐	☐	☐
Protecting historical / cultural landmarks	☐	☒	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☒	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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- Yolo County Housing Central Office

Or return by mail to:
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2018 Yolo County Hazard Mitigation Plan Survey

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95616 Community Name or Location Davis Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☐ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

- | | |
|----------------------------|---|
| <u>1</u> Flood | <u>1</u> Agricultural Pests/Diseases |
| <u>3</u> Levee Failure | <u>1</u> Pandemic/Epidemic |
| <u>1</u> Dam Failure | <u>1</u> HazMat Incident – Radiological |
| <u>2</u> Severe Storm/Rain | <u>1</u> HazMat Incident – Chemical |
| <u>2</u> High Wind | <u>1</u> HazMat Incident – Biological |
| <u>3</u> Extreme Heat | <u>1</u> Transportation Accident - Airplane |
| <u>1</u> Freeze | <u>1</u> Transportation Accident - Train |
| <u>2</u> Fog | <u>2</u> Transportation Accident - Vehicle |
| <u>0</u> Tornado | <u>0</u> Transportation Accident - Ship |
| <u>0</u> Volcano | <u>2</u> Power/Utility Failure |
| <u>1</u> Earthquake | <u>3</u> Telecommunications (IT) Failure |
| <u>1</u> Landslide | <u>2</u> Civil Disturbance |
| <u>2</u> Land Subsidence | <u>1</u> Terrorism |
| <u>2</u> Drought | <u>0</u> Urban Conflagration (Fire) |
| <u>1</u> Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? *(Please check all that apply)*

Media:

- ☐ Newspaper
☐ Television
☐ Radio
☒ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☒ Mail
☐ Fire Department
☒ Website
☐ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☐ Public meetings
☐ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☒ Moderately ☐ Very much
5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☒	☐	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☒	☐	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☒	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☐	☒	☐	☐	☐
Protecting historical / cultural landmarks	☐	☒	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☒	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☒	☐	☐	☐

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95691 Community Name or Location Maple St Within city limits? ☒ Yes ☐ No
Do you have internet access? ☐ Yes ☐ No Do you own ☒ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:
0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

☒ Flood
☒ Levee Failure
☐ Dam Failure
☐ Severe Storm/Rain
☒ High Wind
☒ Extreme Heat
☐ Freeze
☐ Fog
☐ Tornado
☐ Volcano
☐ Earthquake
☐ Landslide
☐ Land Subsidence
☐ Drought
☐ Wildfire

☐ Agricultural Pests/Diseases
☐ Pandemic/Epidemic
☐ HazMat Incident – Radiological
☐ HazMat Incident – Chemical
☐ HazMat Incident – Biological
☐ Transportation Accident - Airplane
☐ Transportation Accident - Train
☐ Transportation Accident - Vehicle
☐ Transportation Accident - Ship
☒ Power/Utility Failure
☒ Telecommunications (IT) Failure
☐ Civil Disturbance
☒ Terrorism
☒ Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

☐ Newspaper
☒ Television
☐ Radio
☐ Cell Phone

Other methods:

☐ Schools
☒ Outdoor advertising (billboards, etc.)
☐ Books

☐ Mail
☐ Fire Department
☐ Website
☐ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☒ Public meetings
☐ University or research institution
☒ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?

☐ Not at all ☒ Somewhat ☐ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, **have not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☒	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☒	☒	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☒	☐	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☒	☒	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☒	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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7/20/17

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95612 Community Name or Location Clarksburg Within city limits? Y ☐ N ☒
Do you have internet access? Y ☐ N ☒ Do you own ☐ or rent ☒

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- | | |
|----------------------------|---|
| <u>3</u> Flood | <u>2</u> Agricultural Pests/Diseases |
| <u>3</u> Levee Failure | <u>2</u> Pandemic/Epidemic |
| <u>3</u> Dam Failure | <u>2</u> HazMat Incident - Radiological |
| <u>2</u> Severe Storm/Rain | <u>0</u> HazMat Incident - Chemical |
| <u>2</u> High Wind | <u>0</u> HazMat Incident - Biological |
| <u>1</u> Extreme Heat | <u>0</u> Transportation Accident - Airplane |
| <u>0</u> Freeze | <u>2</u> Transportation Accident - Train |
| <u>1</u> Fog | <u>3</u> Transportation Accident - Vehicle |
| <u>0</u> Tornado | <u>0</u> Transportation Accident - Ship |
| <u>0</u> Volcano | <u>3</u> Power/Utility Failure |
| <u>2</u> Earthquake | <u>2</u> Telecommunications (IT) Failure |
| <u>0</u> Landslide | <u>0</u> Civil Disturbance |
| <u>0</u> Land Subsidence | <u>3</u> Terrorism |
| <u>2</u> Drought | <u>0</u> Urban Conflagration (Fire) |
| <u>0</u> Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☒ Newspaper
☐ Television
☒ Radio
☐ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☒ Books

- ☒ Mail
☒ Fire Department
☐ Website
☒ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☒ Public meetings
☐ University or research institution
☒ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☐ Moderately ☒ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☒	☐	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☐	☒	☐	☐	☐
Protecting natural environment	☐	☐	☒	☐	☐
Protecting historical / cultural landmarks	☐	☐	☒	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☒	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95645 Community Name or Location Knights Landing Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

- | | |
|--|---|
| <u>3</u> Flood | ☐ Agricultural Pests/Diseases |
| <u>2</u> Levee Failure | ☐ Pandemic/Epidemic |
| <u>2</u> Dam Failure | ☐ HazMat Incident – Radiological |
| ☐ Severe Storm/Rain | ☐ HazMat Incident – Chemical |
| ☐ High Wind | ☐ HazMat Incident – Biological |
| ☐ Extreme Heat | ☐ Transportation Accident - Airplane |
| ☐ Freeze | ☐ Transportation Accident - Train |
| ☐ Fog | ☒ Transportation Accident - Vehicle |
| ☐ Tornado | ☐ Transportation Accident - Ship |
| ☐ Volcano | ☐ Power/Utility Failure |
| ☐ Earthquake | ☐ Telecommunications (IT) Failure |
| ☐ Landslide | ☒ Civil Disturbance |
| ☐ Land Subsidence | ☐ Terrorism |
| ☐ Drought | ☐ Urban Conflagration (Fire) |
| ☒ Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☒ Television
☐ Radio
☒ Cell Phone

Other methods:

- ☐ Schools
☒ Outdoor advertising (billboards, etc.)
☐ Books

- ☒ Mail
☐ Fire Department
☒ Website
☒ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☒ Public meetings
☐ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

RECEIVED
JUL 25 2017
YOL COUNTY
ADMINISTRATIVE SERVICES

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☐ Moderately ☒ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☐	☒	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☐	☐	☒	☐	☐
Protecting historical / cultural landmarks	☒	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☐	☒	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☒	☐	☐	☐

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Yolo County OES, 625 Court Street, Room 202, Woodland, CA 95695

2018 Yolo County Hazard Mitigation Plan Survey

This survey is designed to help the Yolo County Office of Emergency Services identify the community's concerns about natural and human-caused hazards, to better understand community needs in reducing risk and loss from such hazards. It should be completed by an adult, preferably the homeowner or the head of the household. Please take a few minutes to complete this survey. All individual responses are strictly confidential, and are for research purposes only.

This survey can also be found online at www.yolocounty.org

1. Zip Code 95616 Community Name or Location DAVIS Within city limits? Y ☒ N ☐
Do you have internet access? Y ☐ N ☒ Do you own ☐ or rent ☒ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

- | | |
|----------------------------|---|
| <u>2</u> Flood | <u>1</u> Agricultural Pests/Diseases |
| <u>1</u> Levee Failure | <u>0</u> Pandemic/Epidemic |
| <u>1</u> Dam Failure | <u>2</u> HazMat Incident – Radiological |
| <u>0</u> Severe Storm/Rain | <u>2</u> HazMat Incident – Chemical |
| <u>0</u> High Wind | <u>2</u> HazMat Incident – Biological |
| <u>0</u> Extreme Heat | <u>0</u> Transportation Accident - Airplane |
| <u>0</u> Freeze | <u>2</u> Transportation Accident - Train |
| <u>0</u> Fog | <u>0</u> Transportation Accident - Vehicle |
| <u>0</u> Tornado | <u>0</u> Transportation Accident - Ship |
| <u>0</u> Volcano | <u>2</u> Power/Utility Failure |
| <u>0</u> Earthquake | <u>1</u> Telecommunications (IT) Failure |
| <u>0</u> Landslide | <u>0</u> Civil Disturbance |
| <u>0</u> Land Subsidence | <u>0</u> Terrorism |
| <u>0</u> Drought | <u>0</u> Urban Conflagration (Fire) |
| <u>0</u> Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☒ Radio
☐ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☐ Mail
☐ Fire Department
☐ Website
☐ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☐ Public meetings
☐ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?

☐ Not at all ☐ Somewhat ☒ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☒	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☐	☒	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☐	☒	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☒	☐	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☐	☒	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☒	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☐	☒	☐	☐
Protecting and reducing damage to utilities	☐	☒	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☐	☒	☐	☐

THANK YOU for providing this information. Please return this survey to any of the following locations:

- Any branch of the Yolo County Library
- Yolo County Housing Central Office

Or return by mail to:

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1. Zip Code 95618 Community Name or Location El Matoso Within city limits? Y ☒ N ☐
Do you have internet access? Y ☐ N ☐ Do you own ☐ or rent ☒

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- 2 Flood
- 1 Levee Failure
- 1 Dam Failure
- 1 Severe Storm/Rain
- 1 High Wind
- 3 Extreme Heat
- 0 Freeze
- 2 Fog
- 0 Tornado
- 0 Volcano
- 2 Earthquake
- 0 Landslide
- 0 Land Subsidence
- 3 Drought
- 3 Wildfire

- 0 Agricultural Pests/Diseases
- 1 Pandemic/Epidemic
- 0 HazMat Incident – Radiological
- 0 HazMat Incident – Chemical
- 0 HazMat Incident – Biological
- 0 Transportation Accident - Airplane
- 1 Transportation Accident - Train
- 2 Transportation Accident - Vehicle
- 0 Transportation Accident - Ship
- 1 Power/Utility Failure
- 1 Telecommunications (IT) Failure
- 2 Civil Disturbance
- 2 Terrorism
- 2 Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
- ☒ Television
- ☐ Radio
- ☒ Cell Phone

- ☒ Mail
- ☐ Fire Department
- ☒ Website
- ☐ Fact sheet/brochure
- ☐ Church/religious organization
- ☐ Employer
- ☐ Public meetings
- ☐ University or research institution
- ☐ Utility bills

Other methods:

- ☐ Schools
- ☐ Outdoor advertising (billboards, etc.)
- ☐ Books

- ☒ Other Social Media

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☒ Somewhat ☐ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☒	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☐	☒	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☐	☒	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☐	☒	☐	☐	☐
Preventing development in hazard areas	☐	☐	☒	☐	☐
Protecting natural environment	☐	☒	☐	☐	☐
Protecting historical / cultural landmarks	☐	☐	☒	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☐	☒	☐	☐
Protecting and reducing damage to utilities	☐	☐	☒	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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1. Zip Code 95616 Community Name or Location DAVIS Within city limits? Y ☐ N ☒
Do you have internet access? Y ☐ N ☐ Do you own ☐ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- 4 Flood
- 2 Levee Failure
- 2 Dam Failure
- 1 Severe Storm/Rain
- 1 High Wind
- 4 Extreme Heat
- 4 Freeze
- 1 Fog
- 1 Tornado
- 2 Volcano
- 2 Earthquake
- 4 Landslide
- 1 Land Subsidence
- 0 Drought
- 2 Wildfire

- 4 Agricultural Pests/Diseases
- 4 Pandemic/Epidemic
- 4 HazMat Incident – Radiological
- 4 HazMat Incident – Chemical
- 4 HazMat Incident – Biological
- 4 Transportation Accident - Airplane
- 4 Transportation Accident - Train
- 4 Transportation Accident - Vehicle
- 4 Transportation Accident - Ship
- 4 Power/Utility Failure
- 4 Telecommunications (IT) Failure
- 4 Civil Disturbance
- 4 Terrorism
- 1 Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☒ Newspaper
- ☒ Television
- ☐ Radio
- ☒ Cell Phone

Other methods:

- ☒ Schools
- ☐ Outdoor advertising (billboards, etc.)
- ☒ Books

- ☒ Mail
- ☒ Fire Department
- ☐ Website
- ☐ Fact sheet/brochure
- ☐ Church/religious organization
- ☒ Employer
- ☐ Public meetings
- ☐ University or research institution
- ☐ Utility bills
- ☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☒ Somewhat ☐ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☐	☒
Talked with family members about what to do in case of a disaster or emergency	☐	☒	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☒	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☒	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☒	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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1. Zip Code 95614 Community Name or Location E. DAVIS Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

- 2 Flood
- 3 Levee Failure
- 3 Dam Failure
- 1 Severe Storm/Rain
- 1 High Wind
- 2 Extreme Heat
- 2 Freeze
- 0 Fog
- 0 Tornado
- 1 Volcano
- 2 Earthquake
- 1 Landslide
- 3 Land Subsidence
- 3 Drought
- 3 Wildfire

- 2 Agricultural Pests/Diseases
- 2 Pandemic/Epidemic
- 2 HazMat Incident – Radiological
- 2 HazMat Incident – Chemical
- 2 HazMat Incident – Biological
- 2 Transportation Accident - Airplane
- 2 Transportation Accident - Train
- 2 Transportation Accident - Vehicle
- 0 Transportation Accident - Ship
- 2 Power/Utility Failure
- 3 Telecommunications (IT) Failure
- 2 Civil Disturbance
- 2 Terrorism
- 2 Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☒ Newspaper
- ☒ Television
- ☒ Radio
- ☒ Cell Phone

Other methods:

- ☐ Schools
- ☒ Outdoor advertising (billboards, etc.)
- ☒ Books

- ☒ Mail
- ☐ Fire Department
- ☒ Website
- ☒ Fact sheet/brochure
- ☒ Church/religious organization
- ☒ Employer
- ☒ Public meetings
- ☒ University or research institution
- ☐ Utility bills
- ☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☒ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☒	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☒	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☒	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☐	☒	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☒	☐	☐	☐
Protecting and reducing damage to utilities	☐	☒	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☒	☐	☐	☐

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1. Zip Code 95618 Community Name or Location DAVIS Within city limits? Y ☒ N ☐
Do you have internet access? Y ☐ N ☒ Do you own ☐ or rent ☒ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

2 Flood
2 Levee Failure
1 Dam Failure
2 Severe Storm/Rain
1 High Wind
2 Extreme Heat
1 Freeze
1 Fog
1 Tornado
0 Volcano
0 Earthquake
0 Landslide
1 Land Subsidence
2 Drought
2 Wildfire

2 Agricultural Pests/Diseases
2 Pandemic/Epidemic
3 HazMat Incident – Radiological
3 HazMat Incident – Chemical
3 HazMat Incident – Biological
1 Transportation Accident - Airplane
3 Transportation Accident - Train
1 Transportation Accident - Vehicle
0 Transportation Accident - Ship
2 Power/Utility Failure
1 Telecommunications (IT) Failure
1 Civil Disturbance
1 Terrorism
1 Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☐ Radio
☐ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☒ Mail
☐ Fire Department
☐ Website
☒ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☐ Public meetings
☐ University or research institution
☒ Utility bills

☒ Other PUBLIC LIBRARY

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4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☐ Moderately ☐ Very much
5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or <u>received written information</u> on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☐	N/A ☒	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	N/A ☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☒	☐	☐	☐
<u>In the last year</u> , has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☒	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☐	☐	☒	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

NOT SURE WHAT IS MEANT HERE.

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1. Zip Code 95618 Community Name or Location DAVIS Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- | | |
|----------------------------|---|
| <u>0</u> Flood | <u>3</u> Agricultural Pests/Diseases |
| <u>0</u> Levee Failure | <u>1</u> Pandemic/Epidemic |
| <u>0</u> Dam Failure | <u>1</u> HazMat Incident – Radiological |
| <u>0</u> Severe Storm/Rain | <u>1</u> HazMat Incident – Chemical |
| <u>1</u> High Wind | <u>1</u> HazMat Incident – Biological |
| <u>3</u> Extreme Heat | <u>0</u> Transportation Accident - Airplane |
| <u>0</u> Freeze | <u>1</u> Transportation Accident - Train |
| <u>0</u> Fog | <u>1</u> Transportation Accident - Vehicle |
| <u>0</u> Tornado | <u>0</u> Transportation Accident - Ship |
| <u>0</u> Volcano | <u>1</u> Power/Utility Failure |
| <u>0</u> Earthquake | <u>1</u> Telecommunications (IT) Failure |
| <u>0</u> Landslide | <u>0</u> Civil Disturbance |
| <u>1</u> Land Subsidence | <u>0</u> Terrorism |
| <u>3</u> Drought | <u>3</u> Urban Conflagration (Fire) |
| <u>3</u> Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☒ Television
☐ Radio
☒ Cell Phone

- ☐ Mail
☐ Fire Department
☒ Website
☐ Fact sheet/brochure
☐ Church/religious organization

Other methods:

- ☒ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☒ Employer
☐ Public meetings
☐ University or research institution
☐ Utility bills
☐ Other _____

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4. How aware are you of the natural hazards that could affect your home?

☐ Not at all ☒ Somewhat ☐ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☒	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☒	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☐	☒	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☐	☒	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☐	☒	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☐	☐	☒	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☐	☒	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☒	☐	☐	☐

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- Yolo County Housing Central Office

Or return by mail to:

Yolo County OES, 625 Court Street, Room 202, Woodland, CA 95695

2018 Yolo County Hazard Mitigation Plan Survey

This survey is designed to help the Yolo County Office of Emergency Services identify the community's concerns about natural and human-caused hazards, to better understand community needs in reducing risk and loss from such hazards. It should be completed by an adult, preferably the homeowner or the head of the household. Please take a few minutes to complete this survey. All individual responses are strictly confidential, and are for research purposes only.

This survey can also be found online at www.yolocounty.org

1. Zip Code 95695 Community Name or Location Woodland Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

- 2 Flood
- 2 Levee Failure
- 2 Dam Failure
- 3 Severe Storm/Rain
- 1 High Wind
- 1 Extreme Heat
- 0 Freeze
- 1 Fog
- 1 Tornado
- 0 Volcano
- 2 Earthquake
- 1 Landslide
- 1 Land Subsidence
- 3 Drought
- 2 Wildfire

- 2 Agricultural Pests/Diseases
- 2 Pandemic/Epidemic
- 1 HazMat Incident – Radiological
- 2 HazMat Incident – Chemical
- 2 HazMat Incident – Biological
- 1 Transportation Accident - Airplane
- 2 Transportation Accident - Train
- 3 Transportation Accident - Vehicle
- 1 Transportation Accident - Ship
- 3 Power/Utility Failure
- 2 Telecommunications (IT) Failure
- 2 Civil Disturbance
- 3 Terrorism
- 2 Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☒ Newspaper
- ☒ Television
- ☒ Radio
- ☒ Cell Phone

Other methods:

- ☐ Schools
- ☒ Outdoor advertising (billboards, etc.)
- ☒ Books

- ☒ Mail
- ☒ Fire Department
- ☒ Website
- ☒ Fact sheet/brochure
- ☐ Church/religious organization
- ☒ Employer
- ☒ Public meetings
- ☐ University or research institution
- ☒ Utility bills
- ☒ Other Library

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☒ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☒	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☒	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☐	☒	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☒	☐	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☒	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

THANK YOU for providing this information. Please return this survey to any of the following locations:

- Any branch of the Yolo County Library
- Yolo County Housing Central Office

Or return by mail to:
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2018 Yolo County Hazard Mitigation Plan Survey

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95616 Community Name or Location Covell Blvd Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☐ or rent ☒ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:
0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

3 Flood
3 Levee Failure
3 Dam Failure
1 Severe Storm/Rain
1 High Wind
3 Extreme Heat
0 Freeze
0 Fog
0 Tornado
0 Volcano
2 Earthquake
0 Landslide
2 Land Subsidence
1 Drought
3 Wildfire

1 Agricultural Pests/Diseases
0 Pandemic/Epidemic
0 HazMat Incident – Radiological
0 HazMat Incident – Chemical
0 HazMat Incident – Biological
0 Transportation Accident - Airplane
0 Transportation Accident - Train
0 Transportation Accident - Vehicle
0 Transportation Accident - Ship
2 Power/Utility Failure
2 Telecommunications (IT) Failure
0 Civil Disturbance
0 Terrorism
3 Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☐ Radio
☒ Cell Phone

Other methods:

- ☐ Schools
☒ Outdoor advertising (billboards, etc.)
☒ Books

- ☒ Mail
☐ Fire Department
☐ Website
☐ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☐ Public meetings
☐ University or research institution
☒ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☒ Moderately ☐ Very much
5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☒	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☐	☐	☒	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☐	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☐	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☐	☒	☐	☐
Protecting and reducing damage to utilities	☐	☒	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☐	☒	☐	☐

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95616 Community Name or Location Davis Within city limits? Y ☐ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☐ or rent ☒ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0= not concerned; 1 = Somewhat concerned; 2= Moderately concerned; 3 = Very concerned

- | | |
|--|---|
| ☐ Flood | <u>3</u> Agricultural Pests/Diseases |
| ☐ Levee Failure | ☐ Pandemic/Epidemic |
| ☐ Dam Failure | ☐ HazMat Incident – Radiological |
| ☐ Severe Storm/Rain | ☐ HazMat Incident – Chemical |
| ☐ High Wind | ☐ HazMat Incident – Biological |
| ☐ Extreme Heat | ☐ Transportation Accident - Airplane |
| ☐ Freeze | ☐ Transportation Accident - Train |
| ☐ Fog | <u>3</u> Transportation Accident - Vehicle |
| ☐ Tornado | ☐ Transportation Accident - Ship |
| ☐ Volcano | ☐ Power/Utility Failure |
| ☐ Earthquake | ☐ Telecommunications (IT) Failure |
| ☐ Landslide | ☐ Civil Disturbance |
| ☐ Land Subsidence | ☐ Terrorism |
| ☐ Drought | ☐ Urban Conflagration (Fire) |
| <u>2</u> Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☐ Radio
☐ Cell Phone

Other methods:

- ☒ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☐ Mail
☐ Fire Department
☐ Website
☐ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☐ Public meetings
☒ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☒ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☒	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☐	☒	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☐	☒	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☒	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☒	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☒	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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Or return by mail to:

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95616 Community Name or Location Davis Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:
0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

2 Flood
3 Levee Failure
3 Dam Failure
2 Severe Storm/Rain
1 High Wind
2 Extreme Heat
1 Freeze
2 Fog
0 Tornado
0 Volcano?
2 Earthquake
0 Landslide
1 Land Subsidence
2 Drought
3 Wildfire

2 Agricultural Pests/Diseases
2 Pandemic/Epidemic
1 HazMat Incident – Radiological
2 HazMat Incident – Chemical
1 HazMat Incident – Biological VCD?
3 Transportation Accident - Airplane
2 Transportation Accident - Train
3 Transportation Accident - Vehicle
1 Transportation Accident - Ship
2 Power/Utility Failure
2-3 Telecommunications (IT) Failure
2 Civil Disturbance
2 Terrorism
2 Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☒ Television
☒ Radio
☐ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☒ Books

- ☒ Mail
☒ Fire Department
☒ Website
☒ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☒ Public meetings
☒ University or research institution
☒ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☒ Somewhat ☐ Moderately ☐ Very much
5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☒	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☒	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☒	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☒	☐	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☐	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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- Any branch of the Yolo County Library
- Yolo County Housing Central Office

Or return by mail to:
Yolo County OES, 625 Court Street, Room 202, Woodland, CA 95695

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95616 Community Name or Location Stonegate - Davis Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- | | |
|----------------------------|---|
| <u>2</u> Flood | <u>2</u> Agricultural Pests/Diseases |
| <u>2</u> Levee Failure | <u>2</u> Pandemic/Epidemic |
| <u>2</u> Dam Failure | <u>2</u> HazMat Incident – Radiological |
| <u>1</u> Severe Storm/Rain | <u>2</u> HazMat Incident – Chemical |
| <u>2</u> High Wind | <u>2</u> HazMat Incident – Biological |
| <u>2</u> Extreme Heat | <u>0</u> Transportation Accident - Airplane |
| <u>2</u> Freeze | <u>1</u> Transportation Accident - Train |
| <u>2</u> Fog | <u>3</u> Transportation Accident - Vehicle |
| <u>0</u> Tornado | <u>0</u> Transportation Accident - Ship |
| <u>0</u> Volcano | <u>2</u> Power/Utility Failure |
| <u>3</u> Earthquake | <u>3</u> Telecommunications (IT) Failure |
| <u>2</u> Landslide | <u>1</u> Civil Disturbance |
| <u>1</u> Land Subsidence | <u>2</u> Terrorism |
| <u>1</u> Drought | <u>2</u> Urban Conflagration (Fire) |
| <u>1</u> Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☒ Newspaper
☒ Television
☐ Radio
☒ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☒ Mail
☒ Fire Department
☒ Website
☐ Fact sheet/brochure
☐ Church/religious organization
☐ Employer
☒ Public meetings
☒ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☒ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☐	☒	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☒	☐	☐	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☒	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☐	☒	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☒	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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Or return by mail to:

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95616 Community Name or Location Yolo (Mary L Stephens Library) Within city limits? Y ☒ N ☐
Do you have internet access? Y ☒ N ☐ Do you own ☒ or rent ☐

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:
0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

☐ Flood
☐ Levee Failure
☐ Dam Failure
☐ Severe Storm/Rain
☐ High Wind
☐ Extreme Heat
☐ Freeze
☐ Fog
☐ Tornado
☐ Volcano
☒ Earthquake
☐ Landslide
☐ Land Subsidence
☐ Drought
☐ Wildfire

☒ Agricultural Pests/Diseases
☐ Pandemic/Epidemic
☐ HazMat Incident – Radiological
☐ HazMat Incident – Chemical
☐ HazMat Incident – Biological
☐ Transportation Accident - Airplane
☐ Transportation Accident - Train
☒ Transportation Accident - Vehicle
☐ Transportation Accident - Ship
☐ Power/Utility Failure
☐ Telecommunications (IT) Failure
☐ Civil Disturbance
☐ Terrorism
☐ Urban Conflagration (Fire)

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☐ Radio
☒ Cell Phone

Other methods:

- ☒ Schools
☒ Outdoor advertising (billboards, etc.)
☐ Books

- ☐ Mail
☐ Fire Department
☐ Website
☐ Fact sheet/brochure
☐ Church/religious organization
☒ Employer
☐ Public meetings
☒ University or research institution
☐ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☒ Somewhat ☐ Moderately ☐ Very much

5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☒	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☒	☐	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☒	☒	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☒	☐	☐	☐	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☒	☐	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☒	☐	☐	☐	☐
Protecting and reducing damage to utilities	☒	☐	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☒	☐	☐	☐	☐

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This survey can also be found online at www.yolocounty.org

1. Zip Code 95616 Community Name or Location Davis Within city limits? ☒ Y ☐ N ☐
Do you have internet access? ☒ Y ☐ N ☐ Do you own ☒ or rent ☐ ?

2. How concerned are you about the following threats affecting your community? Please give each a priority rating as follows:

0 = not concerned; 1 = Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned

- | | |
|---|--|
| ☐ Flood | ☐ Agricultural Pests/Diseases |
| ☐ Levee Failure | ☐ Pandemic/Epidemic |
| ☐ Dam Failure | ☐ HazMat Incident – Radiological |
| ☒ Severe Storm/Rain | ☐ HazMat Incident – Chemical |
| ☒ High Wind | ☐ HazMat Incident – Biological |
| ☒ Extreme Heat | ☐ Transportation Accident - Airplane |
| ☐ Freeze | ☐ Transportation Accident - Train |
| ☐ Fog | ☐ Transportation Accident - Vehicle |
| ☐ Tornado | ☒ Transportation Accident - Ship |
| ☐ Volcano | ☐ Power/Utility Failure |
| ☐ Earthquake | ☐ Telecommunications (IT) Failure |
| ☐ Landslide | ☐ Civil Disturbance |
| ☐ Land Subsidence | ☐ Terrorism |
| ☒ Drought | ☒ Urban Conflagration (Fire) |
| ☐ Wildfire | |

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (Please check all that apply)

Media:

- ☐ Newspaper
☐ Television
☐ Radio
☐ Cell Phone

Other methods:

- ☐ Schools
☐ Outdoor advertising (billboards, etc.)
☐ Books

- ☒ Mail
☐ Fire Department
☐ Website
☒ Fact sheet/brochure
☐ Church/religious organization
☒ Employer
☐ Public meetings
☐ University or research institution
☒ Utility bills
☐ Other _____

2018 Yolo County Hazard Mitigation Plan Survey

4. How aware are you of the natural hazards that could affect your home?
☐ Not at all ☐ Somewhat ☒ Moderately ☐ Very much
5. In the following list, please check those activities that you or someone in your household, **have done**, **plan to do** in the near future, have **not done**, or are **unable to do**. (Please check one answer for each preparedness activity.)

Have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	☒	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency	☒	☐	☐	☐
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	☒	☐
Prepared a "Disaster Supply Kit" (extra food, water, batteries, medications, first aid, and other emergency supplies)	☐	☐	☒	☐
In the last year, has someone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☒	☐

6. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statements will help us determine community priorities in planning for these hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☐	☐	☒	☐
Protecting critical facilities (hospitals, transportation networks, fire stations)	☒	☐	☐	☐	☐
Preventing development in hazard areas	☒	☐	☐	☐	☐
Protecting natural environment	☒	☐	☐	☐	☐
Protecting historical / cultural landmarks	☐	☒	☐	☐	☐
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	☐	☒	☐	☐	☐
Protecting and reducing damage to utilities	☐	☒	☐	☐	☐
Strengthening emergency services (police, fire, ambulance)	☐	☐	☒	☐	☐

THANK YOU for providing this information. Please return this survey to any of the following locations:

- Any branch of the Yolo County Library
- Yolo County Housing Central Office

Or return by mail to:

Yolo County OES, 625 Court Street, Room 202, Woodland, CA 95695

APPENDIX B: EMAP HAZARD PROFILES

Yolo County HMP Hazard Summary

Hazard	Dam Failure		
Probability of Occurrence	Likely	Risk % 93	Rating 1/29
Significant Occurrences	A major failure of the Oroville Dam spillway and emergency spillway occurred in 2017, prompting a mass evacuation which affected Yolo County.		
	<u>Impacts/Consequences</u>		
Human	High impact - potential for large populations to be impacted, particularly the elderly and those who have difficulty evacuating.		
Property	High impact - homes, businesses, and crop land could be destroyed or damaged.		
Environment	High impact - inundation of water can disrupt natural ecosystems; environmental cleanup may be significant depending on the severity of an event.		
Economic	High impact - potential financial impacts to agriculture and farming with loss of crop land and range land; a significant number of businesses could be destroyed		
Program Operations	High impact - services may be suspended for a significant amount of time.		
Responders	Moderate impact - potential risk to first responders during rescues.		
COOP	High impact - operations may be significantly impacted and have to be relocated.		
Property/ Facilities/ Infrastructure	High impact - critical facilities could be destroyed or significantly damaged in an event.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; public has been receptive to actions taken by local and County government during the most recent dam failure.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Flooding
Probability of Occurrence	Likely
Significant Occurrences	1997, 2006-2007, 2017
	Risk % 82
	Rating 3/29
	<u>Impacts/Consequences</u>
Human	High impact - potential for residents to become stranded in their homes; people could be swept away by high water.
Property	High impact - homes, businesses, and crop land could be destroyed or damaged by floodwaters.
Environment	Moderate impact - contaminants could potentially impact waterways and environmental cleanup could be significant depending on the severity of an event.
Economic	High impact - potential financial impacts to agriculture and farming with loss of crop land and range land; people may have difficulty getting to work.
Program Operations	Moderate impact - services may be temporarily suspended due to lack of access.
Responders	Moderate impact - potential risk to first responders during rescues.
COOP	Moderate impact - potential disruption to government operations due to lack of access and/or damage.
Property/ Facilities/ Infrastructure	High impact - critical facilities could be rendered inoperable during a major event.
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; public has been receptive to actions taken by local and County government during the most recent flooding.

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Levee Failure		
Probability of Occurrence	Likely	Risk % 82	Rating 3/29
Significant Occurrences	None		
<u>Impacts/Consequences</u>			
Human	High impact - potential inundation of homes and businesses could result in loss of life.		
Property	High impact - homes, businesses, and crop land could be destroyed or damaged by floodwaters.		
Environment	Moderate impact - environmental impact could be significant depending on the severity of an event.		
Economic	High impact - potential financial impacts to agriculture and farming with loss of crop land and range land.		
Program Operations	Moderate impact - services may be temporarily suspended.		
Responders	Moderate impact - potential risk to first responders during .		
COOP	Moderate impact - potential disruption to government operations due to lack of access and/or damage.		
Property/ Facilities/ Infrastructure	High impact - critical facilities could be rendered inoperable during a major event.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; there have been no major levee failures to date in Yolo County.		

Yolo County HMP Hazard Summary

Hazard	Earthquake		
Probability of Occurrence	Occasional	Risk % 61	Rating 12/29
<u>Significant Occurrences</u>	1892 Vacaville-Winters Earthquake. Other minor occurrences have occurred with very limited damage.		
<u>Impacts/Consequences</u>			
Human	Moderate impact - potential risk to health and safety from falling debris .		
Property	Moderate impact - potential destruction of homes, businesses, and other structures; potential for impacts from subsequent fires.		
Environment	Low impact - some potential for significant ground shaking to disrupt the Central Valley Aquifer system.		
Economic	Moderate impact, particularly for tourism in the City of Winters - potential for significant damage to buildings throughout the County that could delay their reopening.		
Program Operations	High impact - potential disruption to water , sewage, and gas services; potential impacts to transportation routes used by utility companies.		
Responders	Moderate impact - potential for falling debris as well as transportation route damages that could hinder response.		
COOP	Moderate impact to affected area - access to telecommunications may be limited but city/County departments would likely be able to operate out of other city/County locations.		
Property/ Facilities/ Infrastructure	High impact - potential to significantly damage underground pipelines, water mains, and sewage lines, as well as cause damages to critical facilities such as wastewater treatment plants, electrical substations, hospitals, etc.; levee damages could occur from significant ground shaking.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; a moderate or major earthquake has not occurred in Yolo County in recent history.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Landslide
Probability of Occurrence	Likely Risk % 57 Rating 18/29
Significant Occurrences	Landslides of varying degree occur every year in the Cache Creek Canyon, forcing the closure of State Route 16; the most significant landslide to have occurred in recent history was 1906, when a dam formed over Cache Creek north of Rumsey.
	Impacts/Consequences
Human	Moderate impact - potential risk to health and safety, particularly among motorists and recreational users. Most landslide would typically occur during the wet winter months when State Route 16 is closed north of Rumsey.
Property	Low impact - potential impacts to road infrastructure and vehicles; there are very few structures in landslide prone areas so impacts to buildings would be minimal.
Environment	High impact - entire hillsides could erode and aquatic systems, including Cache and Putah creeks, could be impacted.
Economic	Low impact - State Routes 16 and 128 are not major transportation corridors so impacts to commerce would be minimal, no businesses are located in landslide prone areas.
Program Operations	Low impact - potential disruption to electrical lines along State Routes 16 and 128; the ability to provide critical services would be minimally impacted.
Responders	Moderate impact - potential for transportation route damages that could hinder response to isolated areas.
COOP	Low impact - impacts would be predominantly to rural areas.
Property/Facilities/Infrastructure	Moderate impact - potential for damage to electrical lines and road infrastructure; no critical facilities exist in landslide prone areas.
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; a major landslide in Yolo County has not occurred in recent history. No public issues have evolved from having to close State Route 16 during the winter season.

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Land Subsidence		
Probability of Occurrence	Likely	Risk % 54	Rating 24/29
<u>Significant Occurrences</u>	Land subsidence has been occurring with growing frequency throughout Yolo County, though no major sinkholes have formed.		
<u>Impacts/Consequences</u>			
Human	Moderate impact - potential health risk to citizens dependent on well water; potential impact to persons if a sinkhole forms.		
Property	Moderate impact - potential minor settling of buildings and structures which could also be impacted by a sinkhole.		
Environment	Moderate impact - impacts to the water table through depletion of groundwater; ground settling in natural areas could impact sensitive species.		
Economic	Low impact - minimal impacts to overall commerce and business, even if a major sinkhole were to form.		
Program Operations	Low impact - potential disruption to water , sewage, and gas services if lines needed to be repaired.		
Responders	Low impact - disruptions to transportation corridors would be minimal, even if a major sinkhole were to form.		
COOP	Low impact - departments would be able to operate out of other city/County location even if a major sinkhole were to form.		
Property/ Facilities/ Infrastructure	Moderate impact - ground settling could damage critical facilities such as wastewater treatment plants, electrical substations, hospitals, etc.; levee damages could also occur significant ground settling; a major sinkhole could swallow any critical facility.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; a major sinkhole has not formed in Yolo County. Public confidence has been high with the ability of the County to provide water when wells have failed historically.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Severe Weather - High Wind		
Probability of Occurrence	Highly Likely	Risk % 61	Rating 12/29
Significant Occurrences	High winds frequently occur in Yolo County during atmospheric river events, several of which passed through the county during the winter of 2017.		
	<u>Impacts/Consequences</u>		
Human	Moderate impact - potential risk to health and safety from falling trees and flying debris .		
Property	Moderate impact - potential damages to structures and vehicles from wind as well as from falling trees and flying debris; airport property could be impacted.		
Environment	Low impact - minimal impacts to natural areas.		
Economic	Low impact - potential impacts to electrical lines and communication systems that impact businesses; potential damages to businesses themselves.		
Program Operations	Moderate impact - high winds and downed trees/debris could impede the response of utility companies and service providers.		
Responders	Moderate impact - high winds and downed trees/debris could impeded first responders.		
COOP	Low impact - access to telecommunications may be limited but city/County departments would likely be able to operate out of other city/County locations.		
Property/ Facilities/ Infrastructure	Moderate impact - potential to significantly damage electrical lines; critical facilities could sustain damage.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; a major wind event has not occurred in Yolo County in recent history.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Severe Weather - Fog		
Probability of Occurrence	Highly Likely	Risk % 54	Rating 24/29
<u>Significant Occurrences</u>	Fog frequently occurs in Yolo County during the winter; one major traffic accident in West Sacramento in 1984 was contributed to fog.		
<u>Impacts/Consequences</u>			
Human	High impact - potential risk to health and safety from a major traffic accident; two major interstates traverse Yolo County in the areas where fog primarily occurs.		
Property	Low impact - while there would be no impacts to buildings, vehicles could be severely damaged or totaled in a traffic accident.		
Environment	Low impact - minimal impacts to natural areas.		
Economic	Low impact - potential disruption to commerce from a major traffic accident would be limited.		
Program Operations	Low impact - could impede the response of utility companies and service providers.		
Responders	Moderate impact - could impeded the response time of first responders; safety of first responders could also be compromised.		
COOP	Low impact - minimal impacts to continuity of operations.		
Property/ Facilities/ Infrastructure	Low impact - minimal impacts to facilities and infrastructure; bridges on the Sacramento River could incur slight damage from boat traffic.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; a major fog event with fatalities has not occurred in Yolo County in recent history.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Severe Weather - Tornado		
Probability of Occurrence	Unlikely	Risk % 61	Rating 12/29
Significant Occurrences	Several minor EF-0 tornadoes have touched down in Yolo County in recent years. The only significant tornado to have caused damages in the surrounding area was the 1978 EF-2 tornado that touched down in Sacramento		
	<u>Impacts/Consequences</u>		
Human	Moderate impact - potential risk to health and safety from wind and flying debris.		
Property	High impact - potential damages to buildings and vehicles from wind as well as from flying debris; airport property could be impacted.		
Environment	Low impact - potential impacts to various plants and wildlife.		
Economic	Low impact - potential impacts to electrical lines and communication systems that impact businesses; potential damages to businesses themselves.		
Program Operations	Moderate impact - high winds and downed trees/debris could impede the response of utility companies and service providers.		
Responders	Moderate impact - high winds and downed trees/debris could impeded first responders.		
COOP	Moderate impact - city/County facilities could be damaged or destroyed but departments would likely be able to operate out of other city/County locations.		
Property/Facilities/Infrastructure	High impact - potential to significantly damage or destroy critical facilities and infrastructure, particularly electrical; massive communications failures could occur.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; a major tornado event has not occurred in Yolo County in recent history.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Severe Weather - Extreme Heat		
Probability of Occurrence	Highly Likely	Risk % 54	Rating 24/29
<u>Significant Occurrences</u>	Several moderate heat waves of 1-2 weeks have occurred in Yolo County in recent years including 2017, 2015, and 2013.		
<u>Impacts/Consequences</u>			
Human	Moderate impact - potential risk to health and safety, particularly vulnerable populations including children and the elderly as well as those without access to air conditioning.		
Property	Low impact - minimal impacts to structures and property.		
Environment	Moderate impact - potential to dry out vegetation which can lead to a wildfire.		
Economic	Low impact - potential impacts water supply demands.		
Program Operations	Low impact - ability to provide services should be minimally affected.		
Responders	Moderate impact - potential health impacts, including heat-related illness, due to prolonged exposure		
COOP	Low impact - air conditioning systems may be affected but city/County departments would likely be able to operate out of other city/County locations.		
Property/ Facilities/ Infrastructure	Low impact - most critical facilities and infrastrure would be minimally impacted, though the electrical system could become overtaxed.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; the County provides press releases and locations of cooling centers when there is a heat advisory.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Severe Weather - Freeze		
Probability of Occurrence	Likely	Risk % 50	Rating 27/29
<u>Significant Occurrences</u>	Several freeze events of a few days have occurred in and around Yolo County in recent years, most notably in 2007, 2008, and 2009.		
<u>Impacts/Consequences</u>			
Human	Low impact - potential risk to health and safety, particularly among vulnerable populations including the young and elderly.		
Property	Low impact - minimal impacts to buildings and property.		
Environment	Moderate impact - potential damage to natural areas and sensitive species.		
Economic	Moderate impact - potential impacts to agriculture.		
Program Operations	Low impact - may strain utility companies and service providers.		
Responders	Moderate impact - potential risk to health and safety, including cold - related illnessss such as hypothermia.		
COOP	Low impact - access to electricity may be limited but city/County departments would likely be able to operate out of other city/County locations.		
Property/ Facilities/ Infrastructure	Low impact - electrical system could experience outages; roads could freeze; impacts to critical facilities would be minimal.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; a major freeze has not occurred in Yolo County in recent history.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Volcano (ash)
Probability of Occurrence	Unlikely Risk % 64 Rating 9/29
Significant Occurrences	None to directly affect Yolo County, though significant eruptions from volcanoes that could affect Yolo County with ash include: 1915 eruption of Lassen Peak (CA); 1980 eruption of Mt. Saint Helens (WA)
<u>Impacts/Consequences</u>	
Human	Moderate impact - potential risk to health and safety, particularly among vulnerable populations including the young and elderly .
Property	Moderate impact - potential impacts to the operability of vehicles; potential for ash to collect on buildings and affect ventilation systems.
Environment	High impact - ash could impede the ability of local vegetation to grow and could impact tree mortality; ash can also impact local aquatic ecosystems.
Economic	Moderate impact - potential for impacts to major transportation routes and the opening of businesses.
Program Operations	Moderate impact - potential disruption to electrical services, potential impacts to transportation routes used by utility companies and service providers.
Responders	Moderate impact - potential for transportation route damages that could hinder response; potential for inoperability of emergency vehicles and inaccessibility by aircraft.
COOP	Moderate impact - access to telecommunications may be limited and ability to operate out of alternate facilities and provide critical services may be impeded if the entire County is impacted.
Property/ Facilities/ Infrastructure	Moderate impact - potential for damage to electrical lines and electrical substations; potential for disruption in operability of wastewater treatment plants and landfills.
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; a moderate or major volcanic operation to have affected Yolo County has not occurred in recent history.

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Wildfire
Probability of Occurrence	Highly Likely Risk % 79 Rating 5/29
Significant Occurrences	Recent occurrences include 2014 Monticello Fire, 2015 Wragg Fire, 2015 Rocky Fire, 2015 Jerusalem Fire, 2016 Cold Fire, 2017 Winters Fire
<i>Impacts/Consequences</i>	
Human	Moderate impact - potential risk to health and safety, particularly among homeowners who do not evacuate as well as firefighters. Smoke can affect the breathing of vulnerable populations including the young and elderly.
Property	High impact - potential impacts to campground facilities, homes in the Wildland Urban Interface, and vehicles.
Environment	High impact - entire hillsides and grasslands could be burned in a wildfire, changing native ecosystems and potentially bringing in invasive species.
Economic	Moderate impact - potential impacts on agriculture with a major grass fire.
Program Operations	Moderate impact - services may be temporarily suspended due to fire and/or smoke.
Responders	High impact - risk to health and safety of firefighters and first responders, including an increased risk of smoke inhalation.
COOP	Low impact - departments would likely be able to operate out of other city/County departments.
Property/Facilities/Infrastructure	Moderate impact - potential for damage to electrical lines, road infrastructure, gas facilities in the Wildland Urban Interface.
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; public has been receptive to actions taken by local and County government during recent wildfires.

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Drought		
Probability of Occurrence	Likely	Risk % 61	Rating 12/29
<u>Significant Occurrences</u>	2014-2017,		
<u>Impacts/Consequences</u>			
Human	Moderate impact - potential water use restrictions which could affect vulnerable populations including children and the elderly.		
Property	Low impact - potential impacts to landscaping.		
Environment	High impact - vegetative plants may die off and grassland/forest ecosystems can transition more to desert ecosystems.		
Economic	High impact - potential financial impacts to agriculture and farming with loss of crop land and range land.		
Program Operations	Moderate impact - services may be temporarily suspended, including the operation of wells.		
Responders	Low impact - minimal risk to first responders.		
COOP	Low impact - no major disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	Low impact - potential impacts to heat sensitive critical facilities such as landfills.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; public has been receptive to actions taken by local and County government during the most recent drought.		

EMAP Standard 4.3.1/4.3.2

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Climate Change		
Probability of Occurrence	Highly Likely	Risk % 71	Rating 6/29
<u>Significant Occurrences</u>	Ongoing		
<u>Impacts/Consequences</u>			
Human	High impact - increased threat to populations with increased intensity in natural hazards.		
Property	Moderate impact - increased exposure of homes and businesses to increased intensity of natural hazards including wildfire and flooding.		
Environment	High impact - significant environmental impacts affecting local ecosystems as a result of increased drought and flooding.		
Economic	High impact - potential financial impacts due to shifts in agricultural use with farming and ranching.		
Program Operations	Low impact - minimal impact to services.		
Responders	Low impact - minimal risk to first responders.		
COOP	Low impact - no major disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	Moderate impact - increased exposure of critical facilities to increased intensity of natural hazards, affecting their ability to operate.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; public has been receptive to actions taken by local and County government during the most recent drought.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Agricultural Pests and Diseases		
Probability of Occurrence	Likely	Risk % 61	Rating 12/29
<u>Significant Occurrences</u>	Ongoing		
<u>Impacts/Consequences</u>			
Human	Low impact - minimal risk to people from exposure and contamination		
Property	High impact - widespread devastation of crops and orchards can occur.		
Environment	High impact - invasive and non-native species can eradicate native species and disrupt local natural ecosystems.		
Economic	High impact - Financial impacts from crop loss could be significant.		
Program Operations	Low impact - minimal interruption of services.		
Responders	Low impact - minimal risk to first responders.		
COOP	Low impact - no major disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	Low impact - minimal impacts to critical facilities.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; Yolo County crops have not been significantly impacted by agricultural pests and diseases to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Epidemic/Pandemic		
Probability of Occurrence	Occasional	Risk % 64	Rating 9/29
Significant Occurrences	Norovirus - 2017; Pertussis -2010, 2014; Zika - 2016. Several single case incidents of majore diseases have occurred in Yolo County over the years buit non them have led to a pandemic or epidemic.		
	<i>Impacts/Consequences</i>		
Human	High impact - hundreds and potentially thousands of people could be impacted resulting in illness and death; particular susceptibility to children, affecting school operations.		
Property	Low impact - minimal impacts to property.		
Environment	Low impact - minimal environmental impacts; potential impacts with disposal of medical waste.		
Economic	Moderate impact - large numbers of people affected could potentially impact their ability to work; parents may have to stay home to take care of children.		
Program Operations	High impact - medical services may become overwhelmed; other services may be impacted depending on the severity of an outbreak.		
Responders	High impact - high potential risk to first responders, requiring proper use of personal protective equipment.		
COOP	High impact - government services may be interrupted during a large outbreak, impacting their ability to operate.		
Property/ Facilities/ Infrastructure	Moderate impact - potential for healthcare facilities to become overwhelmed with patients.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; public has been receptive to actions taken by local and County government during recent outbreaks of the Norovirus; no major epidemics or pandemics have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	HazMat Incident - Radiological		
Probability of Occurrence	Unlikely	Risk % 89	Rating 2/29
<u>Significant Occurrences</u>	None		
<u>Impacts/Consequences</u>			
Human	High impact - exposure to radiation would be widespread and could significantly affect large populations.		
Property	High impact - buildings exposed to radiation could become inhabitable and may have to be razed.		
Environment	High impact - large vegetative die off could occur and local wildlife could be significantly exposed to radiation.		
Economic	High impact - large potential financial impacts to agriculture and farming with loss of crop land and range land exposed to radiation; people may be unable to return to work and businesses may close.		
Program Operations	High impact - significant potential disruption in services.		
Responders	High impact - significant risk of radiation exposure to first responders, requiring proper use of personal protective equipment.		
COOP	High impact - significant potential for disruption of operations and the relocation of government agencies.		
Property/ Facilities/ Infrastructure	High impact - critical facilities may be rendered unusable due to radiation exposure.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no radiological incidents have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	HazMat Incident - Chemical		
Probability of Occurrence	Occasional	Risk % 68	Rating 8/29
<u>Significant Occurrences</u>	None		
<u>Impacts/Consequences</u>			
Human	High impact - exposure to a chemical release could significantly affect large populations.		
Property	High impact - widespread impacts depending on the severity of an incident.		
Environment	High impact - vegetation and wildlife could be affected; extensive cleanup may be required, particularly in waterways.		
Economic	Low impact - widespread impacts would be minimal.		
Program Operations	Low impact - services may disrupted if there is a large chemical release.		
Responders	High impact - high potential risk to first responders, requiring proper use of personal protective equipment.		
COOP	Low impact - no major disruptions would be anticipated unless a government building were affected.		
Property/ Facilities/ Infrastructure	Moderate impact - minimal impacts to critical facilities and infrastructure unless a particular site was affected in a widespread event.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no major chemical incidents have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	HazMat Incident - Biological		
Probability of Occurrence	Unlikely	Risk % 57	Rating 18/29
<u>Significant Occurrences</u>	None		
<u>Impacts/Consequences</u>			
Human	High impact - exposure to a biological agent could be widespread and significantly affect large populations.		
Property	Low impact - minimal impacts to property.		
Environment	Moderate impact - minimal impact to the environment directly but environmental health cleanup may be extensive depending upon the severity of an incident.		
Economic	Moderate impact - people may be unable to return to work depending on the severity of an incident.		
Program Operations	Moderate impact - medical services may become overwhelmed; other services may have to be temporarily suspended for safety.		
Responders	High impact - high potential risk to first responders, requiring proper use of personal protective equipment.		
COOP	Moderate impact - government services may be interrupted during a large outbreak, impacting their ability to operate.		
Property/ Facilities/ Infrastructure	Moderate impact - potential for healthcare facilities to become overwhelmed with patients.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no biological incidents have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Transportation Accident - Vehicle		
Probability of Occurrence	Occasional	Risk % 57	Rating 18/29
Significant Occurrences	In 1984, a 70 vehicle pileup occurred on Interstate 80 in West Sacramento, with no fatalities or major injuries.		
	<u>Impacts/Consequences</u>		
Human	High impact - a mass-casualty incident could result in numerous fatalities and injuries.		
Property	Moderate impact - isolated property damage could occur depending on the location and severity of an incident; personal vehicles would be affected.		
Environment	Low impact - minimal impacts to the environment unless a wildfire or spill occurred.		
Economic	Low impact - minimal economic impacts.		
Program Operations	Moderate impact - closure of roads could delay first responders.		
Responders	Moderate impact - potential risk to first responders depending on the severity of an incident, requiring proper use of personal protective equipment.		
COOP	Low impact - no major disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	Moderate impact - transportation infrastructure may be shut down and require extensive repair depending on the severity of the incident.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no major vehicle accidents necessitating a public response have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Transportation Accident - Train		
Probability of Occurrence	Unlikely	Risk % 57	Rating 18/29
<u>Significant Occurrences</u>	None		
<u>Impacts/Consequences</u>			
Human	High impact - a derailment could result in a mass-casualty incident, particularly in a populated area and/or involving a passsenger train.		
Property	Moderate impact - potential impacts to homes and businesses depending on the location of an incident.		
Environment	High impact - a derailment and spill of hazardous materials could significantly impact environmentally sensitive areas, particularly the Yolo Bypass and the Sacramento River.		
Economic	Low impact - minimal economic impacts.		
Program Operations	Low impact - minimal interruption of services.		
Responders	Moderate impact - potential risk to first responders depending on the severity of an incident and commodities involved, requiring proper use of personal protective equipment.		
COOP	Low impact - no major disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	Moderate impact - transportation infrastructure may be shut down and require extensive repair depending on the severity of an incident.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no major train accidents have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Transportation Accident - Airplane		
Probability of Occurrence	Unlikely	Risk % 43	Rating 29/29
Significant Occurrences	None. Several small aviation incidents have occurred in Yolo County over the years, one that resulted in a fatality in 2016.		
	<u>Impacts/Consequences</u>		
Human	High impact - a mass-casualty incident could result from the crash of a large passenger airliner.		
Property	Moderate impact - potential impacts to homes, businesses, and crop land depending on the location and severity of an incident.		
Environment	Low impact - minimal environmental impacts unless a large passenger airliner were to crash into the Yolo Bypass when flooded.		
Economic	Low impact - minimal economic impacts.		
Program Operations	Low impact - minimal interruption of services.		
Responders	Low impact - potential risk to first responders depending on the severity of an incident, requiring proper use of personal protective equipment.		
COOP	Low impact - no major disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	Low impact - minimal impacts to critical facilities and infrastructure unless an airplane were to crash into them.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no major airplane accidents have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Transportation Accident - Ship		
Probability of Occurrence	Unlikely	Risk % 57	Rating 18/29
<u>Significant Occurrences</u>	None		
<u>Impacts/Consequences</u>			
Human	Moderate impact - potential risk to populations in West Sacramento from a cargo ship accident while it is docked at the Port; potential multi-casualty incident involving pleasure craft on the Sacramento River.		
Property	Moderate impact - potential risk to homes and businesses in West Sacramento from a ship accident while it is docked at port.		
Environment	High impact - shoaling/sinking of a cargo vessel in the Deepwater Ship Channel could cause significant environmental impacts.		
Economic	Moderate impact - an isolated accident involving a single cargo ship would not significantly affect the economy, though a major accident at the Port could temporarily disrupt commerce.		
Program Operations	Low impact - minimal disruption of services.		
Responders	Moderate impact - potential risk to first responders depending on the severity of an incident and the cargo involved, requiring proper use of personal protective equipment.		
COOP	Low impact - no major disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	Moderate impact - the Port could be significantly impacted from a ship accident while docked; road/railroad bridges over the Sacramento River could be damaged from a vessel strike.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no major ship accidents have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Power/Utility Failure		
Probability of Occurrence	Occasional	Risk % 61	Rating 12/29
Significant Occurrences	None, though minor power outages have occurred with winter storms and during high heat events.		
	<i>Impacts/Consequences</i>		
Human	Moderate impact - potential impacts to widespread populations, particularly vulnerable populations during major weather events.		
Property	Low impact - minimal impacts to property.		
Environment	Moderate impact - damaged or malfunctioning power and wastewater facilities could cause environmental contamination.		
Economic	Low impact - potential disruption to businesses depending on the severity and duration of an incident.		
Program Operations	Moderate impact - services may be temporarily suspended.		
Responders	Moderate impact - potential risk to first responders depending on the kind and severity of an incident.		
COOP	Moderate impact - some disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	High impact - critical facilities may have to be shut down and could potentially be damaged in a major incident.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no major power or utility failures have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Communications/IT Failure		
Probability of Occurrence	Occasional	Risk % 57	Rating 18/29
<u>Significant Occurrences</u>	None		
<u>Impacts/Consequences</u>			
Human	Moderate impact - potential impacts to emergency communications, affecting the ability of first responders to respond to an incident.		
Property	Low impact - minimal impacts to property.		
Environment	Moderate impact - malfunctioning facilities could cause environmental contamination.		
Economic	Low impact - potential disruptions to businesses depending on the severity and duration of an incident.		
Program Operations	Moderate impact - services may be temporarily suspended.		
Responders	Low impact - minimal risk to first responders.		
COOP	Moderate impact - some disruptions would be anticipated.		
Property/ Facilities/ Infrastructure	High impact - critical facilities may shut down and cease operations depending on the severity of an incident.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; no major communication/IT failures have occurred in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Terrorism		
Probability of Occurrence	Unlikely	Risk % 64	Rating 9/29
<u>Significant Occurrences</u>	None		
<u>Impacts/Consequences</u>			
Human	High impact - potential for a mass-casualty incident, particularly if an incident were to occur in a populated area.		
Property	Moderate impact - impacts would primarily be relegated to an explosion, depending on the severity of an incident.		
Environment	Low impact - enviromental terrorism could result in adverse environmental impacts, particularly through water contamination.		
Economic	Moderate impact - agricultural terrorism could impact crop land and range land; cyberattacks could affect businesses.		
Program Operations	Moderate impact - services may be temporarily suspended depending on the target and scale of the attack.		
Responders	High impact - high potential risk to first responders depending on the severity of an incident.		
COOP	Moderate impact - operations may be temporarily suspended depending on the target and scale of the attack.		
Property/ Facilities/ Infrastructure	Moderate impact - potential impacts to critical facilities depending on the target and scale of the attack.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; there have been no major terrorist attacks in Yolo County to date.		

EMAP Standard 4.3.1/4.3.2

EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Civil Disturbance
Probability of Occurrence	Occasional Risk % 50 Rating 27/29
Significant Occurrences	Several minor civil disturbances have occurred in Yolo County, usually related to festivals and other events. On November 8th, 2012, UC Davis police pepper sprayed a group of protestors, resulting in a civil disturbance.
Impacts/Consequences	
Human	Moderate impact - potential impacts to populations in urban areas when a riot forms.
Property	Moderate impact - potential impacts to homes and businesses if a riot turns violent.
Environment	Low impact - minimal environmental impacts except from potential garbage cleanup.
Economic	Low impact - minimal economic impacts.
Program Operations	Low impact - some services may be interrupted during an event.
Responders	High impact - high risk to first responders when an incident turns violent.
COOP	Low impact - no major disruptions would be anticipated.
Property/Facilities/Infrastructure	Low impact - potential impacts to critical facilities if a riot turns violent.
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; Public perception of the UC Davis pepper spray incident was fairly negative and resulted in a significant financial public relations cost to the University.

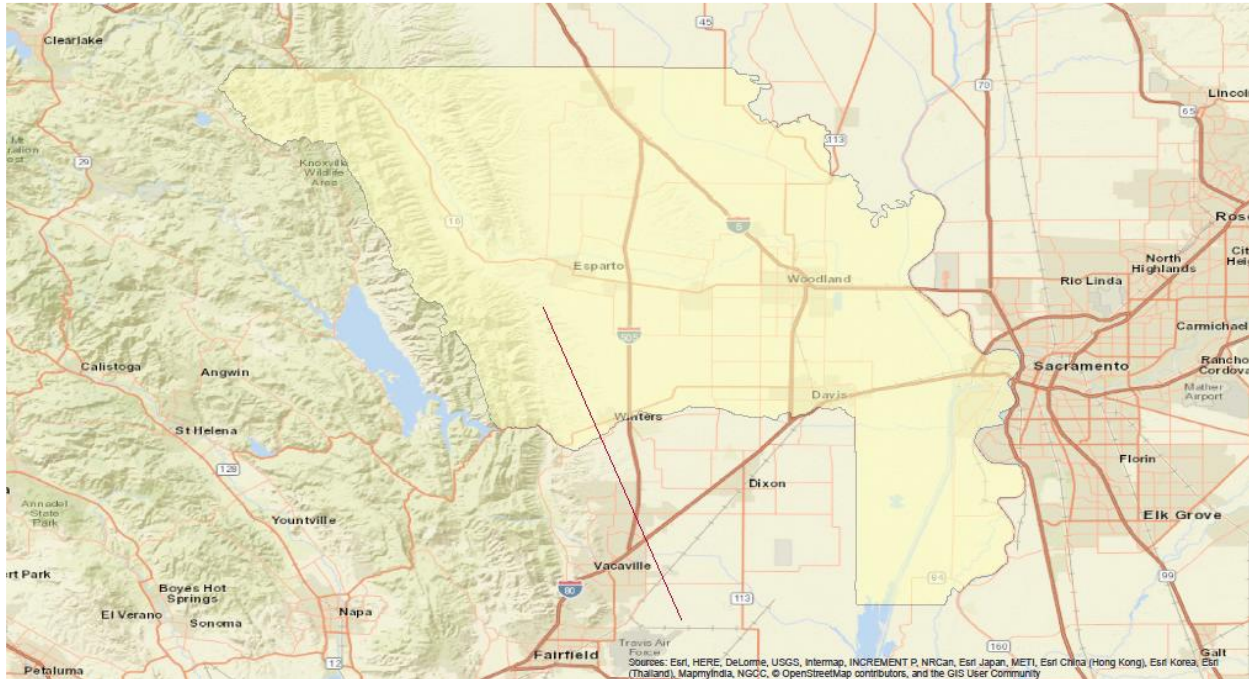
EMAP Standard 4.3.1/4.3.2

Yolo County HMP Hazard Summary

Hazard	Urban Conflagration		
Probability of Occurrence	Unlikely	Risk % 71	Rating 6/29
Significant Occurrences	In 1892, fire swept through downtown Woodland and destroyed a significant portion of the downtown area. The potential always exists in Yolo County for a wildfire to cause an urban conflagration in communities throughout the wildland urban interface.		
	<i>Impacts/Consequences</i>		
Human	High impact - potential for multiple casualties exists, particularly among the elderly and those who don't have an effective means of escape.		
Property	High impact - significant destruction of homes and businesses can occur.		
Environment	High impact - air quality can be significantly affected; hazardous waste removal cleanup may be significant.		
Economic	Moderate impact - potential impacts on businesses; people may have to move.		
Program Operations	Moderate impact - services may be temporarily suspended, due to fire and/or smoke.		
Responders	Moderate impact - potential hazard risk to first responders.		
COOP	Moderate impact - government services may have to relocate if significantly affected.		
Property/ Facilities/ Infrastructure	Moderate impact - potential impacts to utility and transportation infrastructure.		
Public Confidence in Jurisdiction's Governance	Public confidence would be dependent on the overall ability of local leaders and first responders in the County/City to respond; public response to the 1892 Woodland Fire was mostly positive in keeping the fire from spreading to more of downtown.		

EMAP Standard 4.3.1/4.3.2

A simulation of a 9.0 magnitude earthquake in the Great Valley fault system near the Midland Fault (brown line) with an epicenter within the city boundary of Winters was modeled for all of Yolo County using HAZUS.



The following reports were generated:

Building Count by General Occupancy:



Building Damage by Count by General Occupancy



December 22, 2017

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
California						
Yolo						
Education	83	33	32	15	6	149
Other Residential	2,265	1,550	1,587	1,011	422	6,834
Commercial	1,078	583	648	319	141	2,709
Industrial	231	128	154	85	46	645
Religion	108	57	55	30	15	205
Government	45	21	23	12	5	106
Agriculture	126	72	66	36	24	324
Single Family	30,104	13,950	4,523	347	100	49,035
Total	34,020	16,401	7,087	1,856	764	60,127
Region Total	34,020	16,401	7,087	1,856	764	60,127

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

DR

Building stock dollar exposure by occupancy:



Building Stock Exposure By General Occupancy

December 22, 2017

All values are in thousands of dollars

	Residential	Commercial	Industrial	Agriculture	Religion	Government	Education	Total
California								
Yolo	16,233,468	2,721,074	641,206	165,497	254,572	129,061	365,740	20,510,618
Total	16,233,468	2,721,074	641,206	165,497	254,572	129,061	365,740	20,510,618
Region Total	16,233,468	2,721,074	641,206	165,497	254,572	129,061	365,740	20,510,618

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty

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Scenario : The Big One

Earthquake Hazard Report

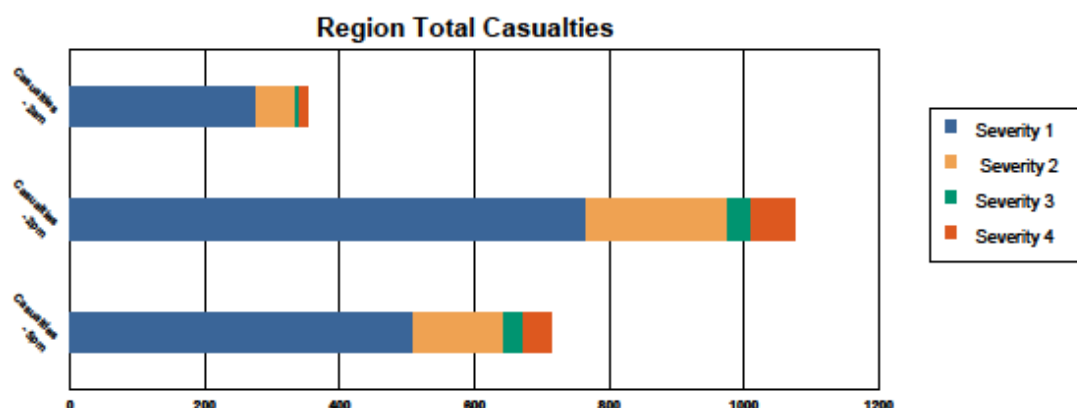
DRAFT

Casualties:



Casualties Summary Report

December 22, 2017



Injury Severity Level					
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Yolo					
Casualties - 2am					
Commuting	0	0	0	0	0
Commercial	7	2	0	1	10
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	9	2	0	1	12
Other-Residential	176	41	5	10	231
Single Family	85	11	1	1	98
Total Casualties - 2am	276	57	6	12	352
Casualties - 2pm					
Commuting	0	0	1	0	1
Commercial	406	111	18	35	569
Educational	248	70	11	22	351
Hotels	0	0	0	0	0
Industrial	63	17	3	5	88
Other-Residential	35	8	1	2	46
Single Family	16	2	0	0	18

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report



	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Yolo					
Total Casualties - 2pm	767	209	34	65	1,074
Casualties - 5pm					
Commuting	3	5	8	2	18
Commercial	302	82	13	25	422
Educational	66	18	3	6	93
Hotels	0	0	0	0	0
Industrial	39	11	2	3	55
Other-Residential	66	15	2	4	87
Single Family	33	4	0	0	38
Total Casualties - 5pm	508	136	28	40	713
Region Total	NA	NA	NA	NA	NA

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

Debris generated:



Debris Summary Report



December 22, 2017

All values are in thousands of tons.

	Brick, Wood & Others	Concrete & Steel	Total
California			
Yolo	114	285	400
Total	114	285	400
Region Total	114	285	400

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

DR

Direct economic losses for buildings:



Direct Economic Losses For Buildings

December 22, 2017

All values are in thousands of dollars

	Capital Stock Losses				Loss Ratio %	Income Losses				Total Loss
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss		Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
California										
Yolo	216,117	837,538	306,580	8,600	5.14	108,457	51,436	63,284	54,850	1,646,862
Total	216,117	837,538	306,580	8,600	5.14	108,457	51,436	63,284	54,850	1,646,862
Region Total	216,117	837,538	306,580	8,600	5.14	108,457	51,436	63,284	54,850	1,646,862

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

Direct economic losses for transportation:



Direct Economic Loss For Transportation

December 22, 2017

All values are in thousands of dollars

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
California								
Yolo								
Segments	0	0	0					0
Bridges	27,821	4	0					27,825
Tunnels	0	0	0					0
Facilities		2,616	0	1,723	4,381	0	11,028	19,747
Total	27,821	2,620	0	1,723	4,381	0	11,028	47,572
Total	27,821	2,620	0	1,723	4,381	0	11,028	47,572
Region Total	27,821	2,620	0	1,723	4,381	0	11,028	47,572

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

DR

Direct economic losses for utilities:



Direct Economic Loss For Utilities

December 22, 2017

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Yolo							
Facilities	0	40,395	0	0	35,224	115	75,734
Pipelines	0	0	0	0			0
Total	0	40,395	0	0	35,224	115	75,734
Total	0	40,395	0	0	35,224	115	75,734
Region Total	0	40,395	0	0	35,224	115	75,734

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

DR

Fire station facilities functionality:



Fire Station Facilities Functionality

December 22, 2017

	Count	Functionality(%) At Day 1
California		
Yolo	20	69.00
Total	20	69.00
Region Total	20	69.00

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty

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Scenario : The Big One

Earthquake Hazard Report

Police stations facilities functionality:



Police Station Facilities Functionality

December 22, 2017

	Count	Functionality(%) At Day 1
California		
Yolo	5	67.20
Total	5	67.20
Region Total	5	67.20

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

Highway bridge damage:



Highway Bridge Damage

December 22, 2017

	# of Bridges	Average for Damage State				
		None	Slight	Moderate	Extensive	Complete
California						
Yolo	253	0.72	0.10	0.06	0.07	0.05
Total	253	0.72	0.10	0.06	0.07	0.05
Region Average	253	0.72	0.10	0.06	0.07	0.05

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty

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Scenario : The Big One

Earthquake Hazard Report

DR

Potable water pipeline damage:



Potable Water Pipeline Damage

December 22, 2017

	Pipeline Length (KM)	Total Number of Leaks	Total Number of Breaks
California			
Yolo	7,577	0	0
Total	7,577	0	0
Region Total	7,577	0	0

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty

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Scenario : The Big One

Earthquake Hazard Report

Railroad bridge damage:



Railroad Bridge Damage

December 22, 2017

	# Bridges	Average For Damage State				
		None	Slight	Moderate	Extensive	Complete
California						
Yolo	8	0.95	0.03	0.01	0.01	0.00
Total	8	0.95	0.03	0.01	0.01	0.00
Region Total	8	0.95	0.03	0.01	0.01	0.00

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty

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Region : The Big One

Earthquake Hazard Report

DR

Schools functionality:



School Functionality

December 22, 2017

	Count	Functionality (%)
California		
Yolo	83	57.10
Total	83	57.10
Region Total	83	57.10

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

Transportation systems dollar exposure:



Transportation System Dollar Exposure

December 22, 2017

All values are in thousands of dollars

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Runway	Total
California									
Yolo									
Segments	2,571,729	125,546	0						2,697,275
Bridges	827,899	786	0						828,685
Tunnels	0	0	0						0
Facilities		13,315	0	7,717	27,958	0	42,604	151,856	91,504
Total	3,399,628	139,647	0	7,717	27,958	0	42,604	151,856	3,769,410
Total	3,399,628	139,647	0	7,717	27,958	0	42,604	151,856	3,769,410
Region Total	3,399,628	139,647	0	7,717	27,958	0	42,604	151,856	3,769,410

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

DR

Utility systems dollar exposure:



Utility System Dollar Exposure

December 22, 2017

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Yolo							
Facilities	0	392,940	0	0	259,600	826	653,366
Pipelines	151,545	90,927	0	60,618			303,090
Total	151,545	483,867	0	60,618	259,600	826	956,456
Total	151,545	483,867	0	60,618	259,600	826	956,456
Region Total	151,545	483,867	0	60,618	259,600	826	956,456

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

DRAFT

Waste water facility damage:



Waste Water Facility Damage

December 22, 2017

	# of Facilities	Average for Damage State				
		None	Slight	Moderate	Extensive	Complete
California						
Yolo	5	0.24	0.42	0.28	0.06	0.01
Total	5	0.24	0.42	0.28	0.06	0.01
Region Total	5	0.24	0.42	0.28	0.06	0.01

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

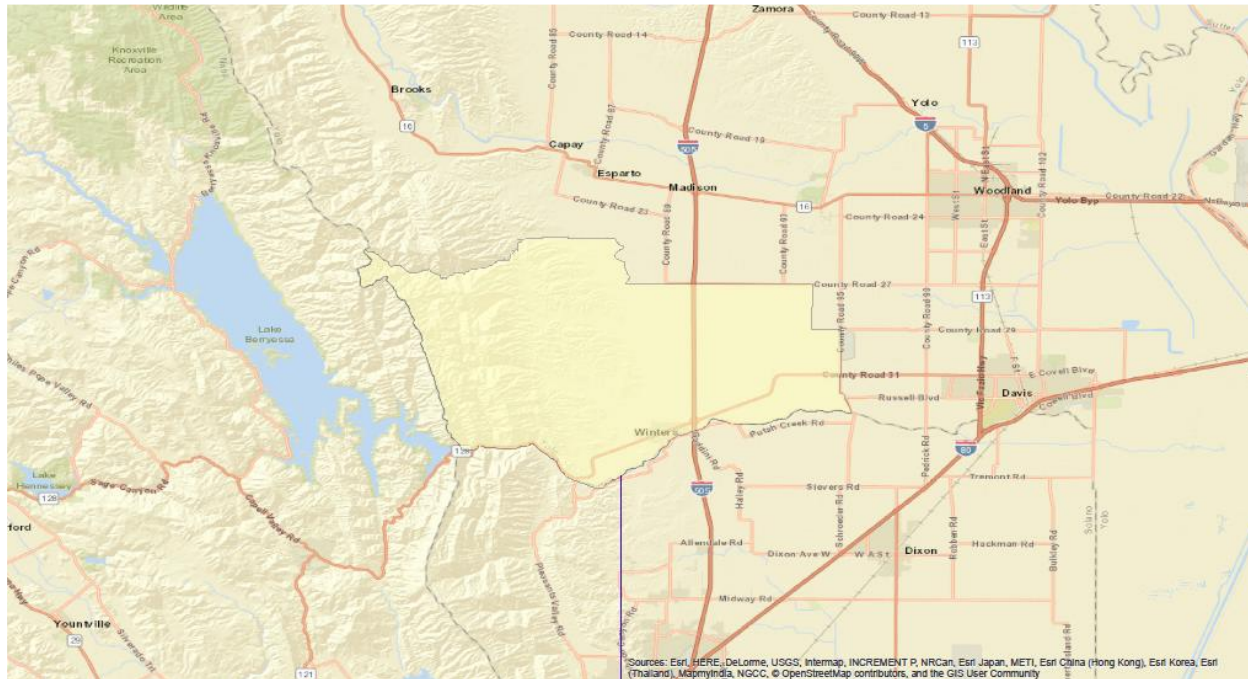
Study Region : YoloCounty
Scenario : The Big One

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Earthquake Hazard Report

DRAFT

A simulation of the 1892 Winters Earthquake (purple line) Winters was modeled for the Winters census tract using HAZUS to determine what present day damages and losses would be.



The following reports were generated:

Building damage count by general occupancy:



Building Damage by Count by General Occupancy



December 22, 2017

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
California						
Yolo						
Agriculture	14	0	8	3	1	35
Commercial	37	20	28	11	2	104
Education	3	2	2	1	0	7
Government	1	0	0	0	0	2
Industrial	10	7	0	4	1	31
Religion	4	3	3	1	0	11
Other Residential	67	66	80	47	10	270
Single Family	1,140	773	270	18	5	2,224
Total	1,285	887	408	84	19	2,684
Region Total	1,285	887	408	84	19	2,684

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : WintersQuake
Scenario : WintersQuake

Page : 1 of 1

Earthquake Hazard Report

DR

Building stock dollar exposure by occupancy:



Building Stock Exposure By General Occupancy

December 22, 2017

All values are in thousands of dollars

	Residential	Commercial	Industrial	Agriculture	Religion	Government	Education	Total
California								
Yolo	602,643	58,126	27,918	18,953	11,090	1,719	11,275	731,724
Total	602,643	58,126	27,918	18,953	11,090	1,719	11,275	731,724
Region Total	602,643	58,126	27,918	18,953	11,090	1,719	11,275	731,724

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : WintersQuake

Page : 1 of 1

Scenario : WintersQuake

Earthquake Hazard Report

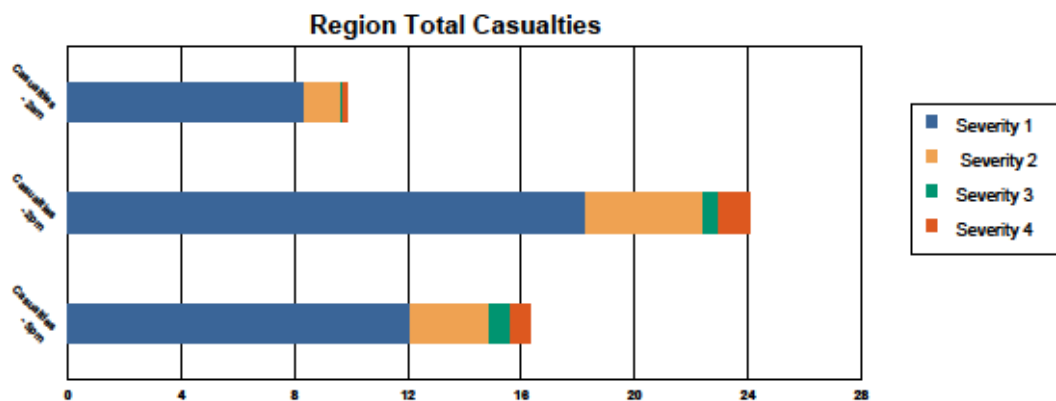
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Casualties:



Casualties Summary Report

December 22, 2017



Injury Severity Level					
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Yolo					
Casualties - 2am					
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	3	1	0	0	4
Single Family	5	1	0	0	6
Total Casualties - 2am	8	1	0	0	9
Casualties - 2pm					
Commuting	0	0	0	0	0
Commercial	9	2	0	1	12
Educational	5	1	0	0	6
Hotels	0	0	0	0	0
Industrial	3	1	0	0	4
Other-Residential	1	0	0	0	1
Single Family	1	0	0	0	1

Study Region : WintersQuake
Scenario : WintersQuake

Page : 1 of 2

Earthquake Hazard Report



	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Yolo					
Total Casualties - 2pm	18	4	1	1	24
Casualties - 5pm					
Commuting	0	0	0	0	1
Commercial	7	2	0	0	9
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	2	0	0	0	2
Other-Residential	1	0	0	0	1
Single Family	2	0	0	0	2
Total Casualties - 5pm	12	3	1	1	16
Region Total					
	NA	NA	NA	NA	NA

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : WintersQuake
Scenario : WintersQuake

Page : 2 of 2

Earthquake Hazard Report

Debris generated:



Debris Summary Report



December 22, 2017

All values are in thousands of tons.

	Brick, Wood & Others	Concrete & Steel	Total
California			
Yolo	4	6	10
Total	4	6	10
Region Total	4	6	10

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : WintersQuake

Page : 1 of 1

Scenario : WintersQuake

Earthquake Hazard Report

DR

Direct economic losses for buildings:



Direct Economic Losses For Buildings

December 22, 2017

All values are in thousands of dollars

	Capital Stock Losses				Loss Ratio %	Income Losses				Total Loss
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss		Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
California										
Yolo	7,022	28,916	11,366	319	4.91	3,914	1,242	1,311	1,465	55,556
Total	7,022	28,916	11,366	319	4.91	3,914	1,242	1,311	1,465	55,556
Region Total	7,022	28,916	11,366	319	4.91	3,914	1,242	1,311	1,465	55,556

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : WintersQuake
Scenario : WintersQuake

Page : 1 of 1

Earthquake Hazard Report

DR

Direct economic losses for utilities:



Direct Economic Loss For Utilities

December 22, 2017

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Yolo							
Facilities	0	0	0	0	0	0	0
Pipelines	0	0	0	0			0
Total	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
Region Total	0	0	0	0	0	0	0

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region :WintersQuake
Scenario : WintersQuake

Page : 1 of 1

Earthquake Hazard Report

DR

Utility system dollar exposure:



Utility System Dollar Exposure

December 22, 2017

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Yolo							
Facilities	0	0	0	0	0	0	0
Pipelines	5,230	3,138	0	2,092			10,461
Total	5,230	3,138	0	2,092	0	0	10,461
Total	5,230	3,138	0	2,092	0	0	10,461
Region Total	5,230	3,138	0	2,092	0	0	10,461

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Study Region : WintersQuake
Scenario : WintersQuake

Page : 1 of 1

Earthquake Hazard Report

DIS

APPENDIX D: COMMUNITY PROFILE – YOLO COUNTY

DRAFT



This document is a support annex to the
Yolo County Multijurisdictional Hazard
Mitigation Plan

Yolo County Unincorporated Area Community Profile

Version 1.0

December 2018



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ACKNOWLEDGEMENTS

Yolo County would like to thank those Yolo County Operational Area collaborators and partners who participated in the planning and development of this document.

The official Yolo County Operational Area Hazard Mitigation Steering Committee provided the oversight and dedication to this project that was required and without their commitment; this project would not be possible.

As with any working plan, this document represents planning strategies and guidance as understood as of the date of this plan's release. This plan identifies natural hazards and risks and identifies the hazard mitigation strategy to reduce vulnerability and make the unincorporated areas of Yolo County more disaster resistant and sustainable.

DRAFT

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LETTER OF PROMULGATION

December 2018

To: Officials and Employees of the County of Yolo

The preservation of life and property is an inherent responsibility of county government. As disasters occur in devastating form at any time, the County of Yolo must provide safeguards which will save lives and minimize property damage through mitigation planning and training. Sound mitigation planning carried out by knowledgeable and well-trained personnel can and will minimize losses.

The Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan (HMP) identifies the hazard risks and vulnerabilities for the Yolo County Operational Area and identifies mitigation projects and actions to help reduce those risks. It provides for the integration and coordination of planning efforts of multiple jurisdictions within Yolo County as well as the Yocha Dehe Wintun Nation and the Housing Authority of Yolo County.

This County of Yolo Community Profile is an extension of the HMP. The content is based upon guidance approved and provided by the Federal Emergency Management Agency and the California Governor's Office of Emergency Services. The intent is to provide direction for the City of Davis on how to mitigate against the threat of disaster through effective mitigation strategies and initiatives.

Once adopted, the HMP and Community Profile will be reviewed and tested periodically and revised as necessary to meet changing conditions and requirements.

The County of Yolo Board of Supervisors gives its full support to this Community Profile and urges all employees and individuals to mitigate against the threat of disaster before they occur.

Chair, Board of Supervisors

County of Yolo

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SECTION 1.0: INTRODUCTION

The Yolo County Community Profile has been prepared in conjunction with the Yolo County Operational Area Hazard Multi-Jurisdictional Mitigation Plan (HMP), establishing an inter-jurisdictional process for the development and implementation of effective hazard mitigation strategies in association with identified hazards that pose real or potential threats to the unincorporated areas of Yolo County.

1.1 HISTORY

Yolo County was one of the original 27 counties created when California became a state in 1850. "Yolo" is derived from the native Poewin Indian word "yo-lo-y" meaning "abounding in the rushes". Other historians believe it to be the name of the Indian chief, Yodo, or the Indian village of Yodoi.

The first recorded contact with Westerners occurred in the late 1820s. These included Spanish missionaries as well as trappers and hunters who could be found along the banks of "Cache Creek" - named by French-Canadian trappers. The first white settler was William Gordon who received a land grant from the Mexican government in 1842 and began planting wheat and other crops.

The towns of Yolo County were out growths of native villages along waterways. The county's first town, Fremont, was founded in 1849 along the confluence of the Sacramento and Feather Rivers and became the first county seat. Knights Landing, Washington, Cacheville (later called Yolo), Clarksburg, Winters, Esparto, Capay, Guinda, and Davisville (Davis) were all built near waterways. Davisville had the added advantage of being on the path of the newly constructed railroad. Woodland, which became the county seat in 1862, began in a wooded area of valley oaks and was also served by a nearby railroad.

In 1906, to further emphasize agriculture's role in Yolo County, the University of California chose a 780-acre farm belonging to Jerome Davis for establishment of a university farm to serve as part of the College of Agriculture. The Davis farm has since become a separate campus of the University and has received world-wide fame for its research and educational work.

In 1987, West Sacramento became Yolo County's fourth incorporated city. It is home to the Port of West Sacramento and Sacramento Deep Water Channel, providing worldwide access to Yolo County's agricultural and manufacturing production.

1.2 OVERVIEW

Agriculture is Yolo County's primary industry. The eastern two-thirds of the County consists of nearly level alluvial fans, flat plains, and basins, while the western third is largely composed of rolling terraces and steep uplands used for dry-farmed grain and range. The elevation ranges from slightly below sea level near the Sacramento River around Clarksburg to 3,000 feet along the ridge of the western mountains.

Yolo County's 653,549 acres is home to over 214,555 people as of January 2016. Nearly 88% of the population lives in the County's four cities (Davis, West Sacramento, Woodland, and Winters). Yolo County's proximity to Sacramento International Airport as well as two major interstate highways places it within a significant transportation hub of the state. See Figure 1 for a map of Yolo County.

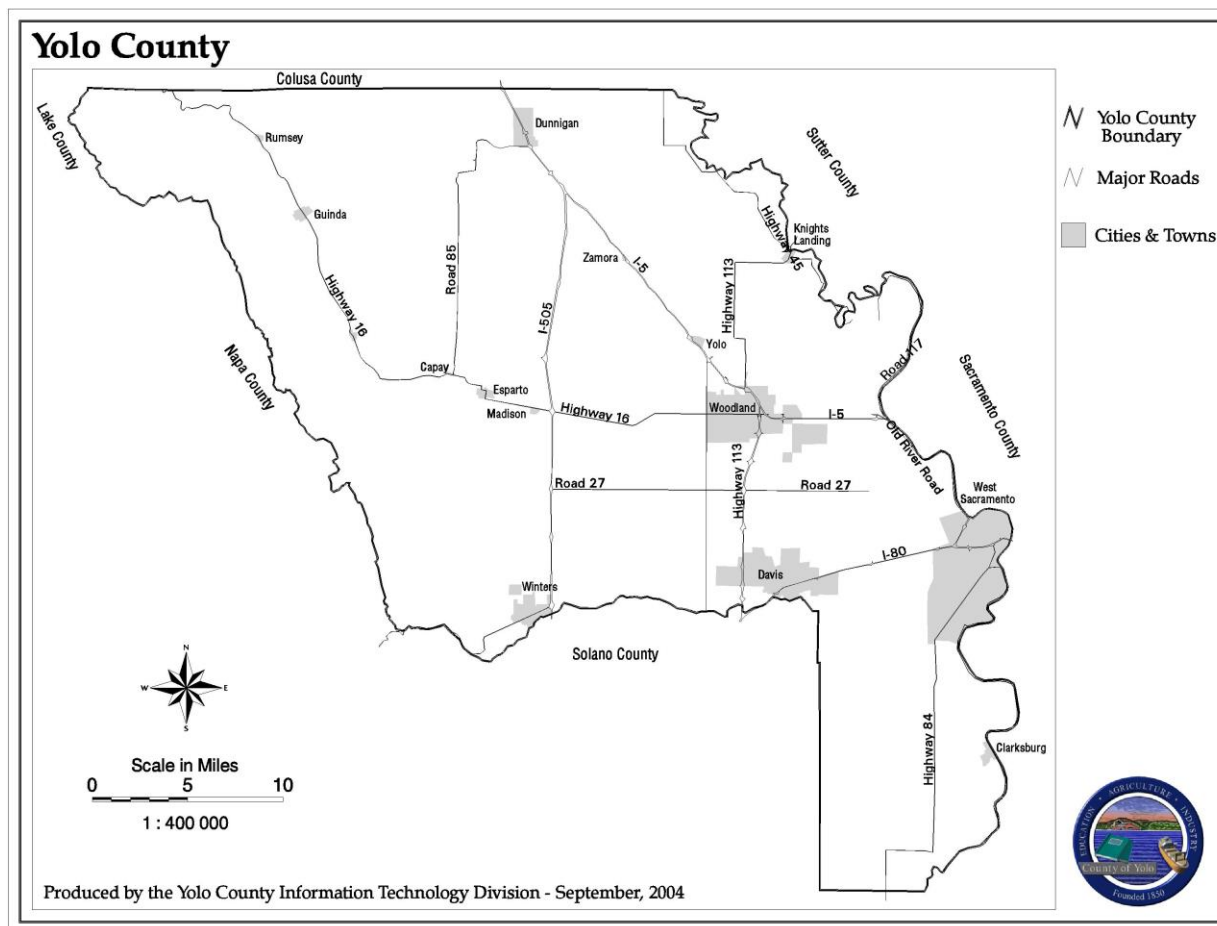


Figure 1: Map of Yolo County

County departments are responsible for providing a wide array of services to the unincorporated areas of Yolo County, as well as within municipalities. Departments are managed by elected officials or appointed directors who are responsible for administering local programs and services, in accordance with both applicable state law and county regulations. Many county departments are further sub-divided into divisions, offices, and programs, which provide specific services to the public. The following is a list of Yolo County departments:

- Agriculture
- Assessor/Clerk-Recorder/Elections
- Board of Supervisors
- Community Services
 - Environmental Health
 - Fleet Services
 - Integrated Waste Management
 - Planning
 - Public Works
- County Administrator
- County Counsel

- Child Support Services
- Department of Financial Services
- District Attorney
- General Services
 - Facilities
 - Information Technology
 - Parks
- Health & Human Services Agency
 - Community Health
 - Child, Youth & Family
 - Adult & Aging
 - Service Centers
- Human Resources
- Library
- Probation
- Public Defender
- Sheriff-Coroner

Special Districts

The following is a list of special districts in Yolo County.

- Knights Landing Ridge Drainage District
- Dunnigan Water District
- Esparto Community Service District
- Madison Community Service District
- Knights Landing Community Services District
- Cacheville Community Services District
- North Davis Meadows CSA
- Dunnigan County Service Area
- El Macero County Service Area
- Garcia Bend County Service Area
- North Davis Meadows County Service Area
- Wild Wings County Service Area
- Snowball County Service Area
- Willowbank County Service Area
- Colusa Basin Drainage District (also in Colusa County)
- Yolo County Flood Control & Water Conservation District
- Yolo County Resource Conservation District
- Yolo County Transportation District
- Reclamation Districts 108 (also in Colusa County), 150, 1600, 2035, 2068 (also in Solano County), 2093 (also in Solano County), 307, 537, 730, 765, 785, 787, 827, 999 (also in Sacramento County)
- Sacramento River Westside Levee District (also in Colusa County)
- Yolo County Fire Districts (see below)
- Yolo County School Districts (see Section 1.4.5)
- Yolo County Cemetery Districts

- Capay Cemetery
- Cottonwood Cemetery
- Davis Cemetery
- Knights Landing Cemetery
- Mary's Cemetery
- Winters Cemetery
- Solano Air Quality Management District (not in Yolo County)
- Napa-Solano-Yolo-Marin County Public Health Laboratory (not in Yolo County)
- Woodland-Davis Clean Water Agency
- Sacramento Regional County Sanitation District (also in Sacramento and Placer Counties)

Fire Districts

Figure 2 provides a map of the Yolo County Fire Protection Districts.

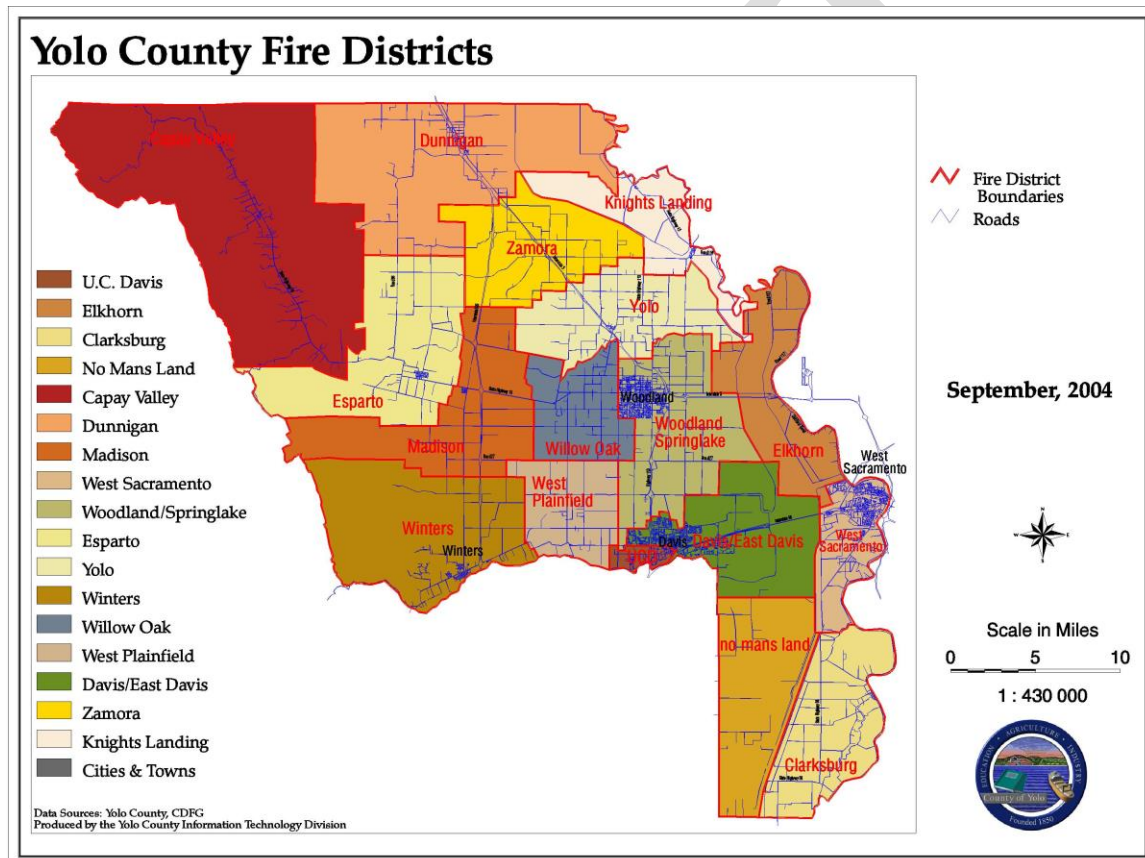


Figure 2: Yolo County Fire Protection Districts

Parks & Recreation

In addition to parks operated and maintained by the four cities, the County of Yolo also provides regional recreational sites at various locations:

- Cache Creek Canyon
- Camp Haswell
- Vernon A. Nichols Park
- Knights Landing Boat Launch

- Esparto Community Park
- Elkhorn Regional Park
- Putah Creek Fishing Access
- Grasslands Regional Park
- Clarksburg Boat Launch
- Gibson Historical Museum

1.3 DEMOGRAPHICS

The population of Unincorporated Yolo County is approximately 28,500 residents as of 2016. Yolo County has seen significant growth over the past decade. See Figure 3 for annual population growth rates for Yolo County compared to the rest of California from 2002 to 2016.

Annual population growth rates for California, Yolo County

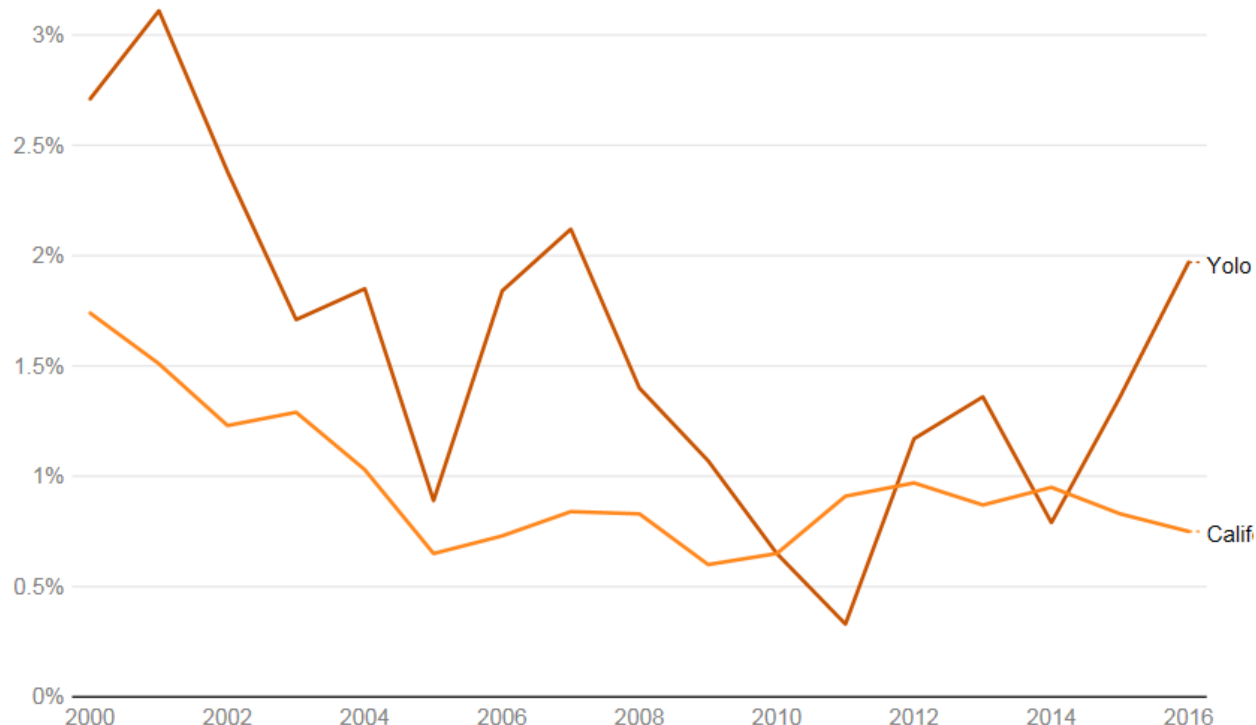


Figure 3: Annual Population Growth Rates for Yolo County 2000-2016

1.4 INFRASTRUCTURE

Yolo County is home to a vast array of infrastructure, serving as a primary rail and interstate transportation corridor for northern California. Union Pacific, Burlington Northern and Santa Fe, and Amtrak all operate through Yolo County. Several major pipelines also crisscross Yolo County, including the Kinder Morgan Pipeline and the Wickland Pipeline.

1.4.1 COMMUNICATIONS

The majority of Yolo County receives its landline telephone service through Verizon. Cellular phone service is provided by major national carriers including AT&T, Verizon, Sprint, Metro Unlimited and others. Cable service companies also provide broadband service within selected areas.

Yolo County is serviced by several commercial cable television providers, both within the incorporated municipalities as well as in selected unincorporated communities. Cable providers also offer broadband Internet connectivity to subscribers. Numerous commercial phone, cable, and information technology services provide broadband and wireless access to the Internet throughout Yolo County.

Yolo County is served by a host of television and radio broadcast services throughout Northern California. The primary broadcast market includes Sacramento, the San Francisco Bay Area, North Coast, Northern Sacramento Valley, and Southern Sacramento-San Joaquin Valley regions. In addition, the county is served by an assortment of public-not for profit broadcast entities that provide educational or community-based programming.

Most of Yolo County is also serviced by satellite broadcast companies, which offer paid programming services. Satellite broadcast services provide an alternative source for remote areas of the county not able to receive cable or broadcast television signals.

Yolo County is served by the following local and regional printed newspapers:

- Daily Democrat – Woodland
- Davis Enterprise – Davis
- The News-Ledger – West Sacramento
- The Winters Express – Winters
- Valley Star – West Sacramento
- West Sacramento Press – West Sacramento
- Sacramento Bee – Sacramento

1.4.2 TRANSPORTATION

The following federal interstates and state highways transit through Yolo County:

- Interstate 5 North – South, Sacramento Co into Colusa Co
- Interstate 80 East – West, Sacramento Co into Solano Co
- Interstate 505 North – South, I-5 (Dunnigan) to I-80 (Vacaville)
- State Highway 16 East – West, Woodland west into Colusa Co
- State Highway 45 North – South, Knights Landing into Colusa Co
- State Highway 84 North – South, West Sacramento into Solano Co
- State Highway 113 North – South, I-80 (Davis) north into Colusa Co
- State Route 128 East – West, Winters west into Lake Co

The county is crisscrossed by a selection of rural roads that are maintained by County government. These roads serve all incorporated and unincorporated communities, and connect with both municipal streets grids and the state highway system.

Yolobus, or the Yolo County Transportation Department, provides bus service throughout the unincorporated County. Bus stops are strategically located throughout Yolo County. Service extends into Sacramento County to cover the Sacramento International Airport, and downtown capitol area, where agreements exist with Sacramento Paratransit.

In addition to Yolobus, UC Davis operates the Unitrans bus service, which covers the university campus as well as a major portion of Davis and the unincorporated community of El Macero.

Passenger rail service is provided to Yolo County by Amtrak, with special service under arrangement with the State of California. The Sierra Northern Railway operates the River Train from West Sacramento through the unincorporated County to Woodland. A full passenger rail station is located in Davis, and provides connections to Sacramento, the San Francisco Bay area, and nationwide through the Amtrak rail system.

There are three general aviation airports located in and serving Yolo County:

- Watts-Woodland Airport (Private)
- Yolo County Airport (County)
- UC Davis Airport (University) – Located at UC Davis for flight school training

There are numerous private airstrips scattered throughout the unincorporated County.

The nearest airport with scheduled commercial flights is Sacramento International, which is located just east of Yolo County, off Interstate 5, in Sacramento County.

Access to commercially navigable waterways is provided through the Port of West Sacramento, which serves as a point of receiving and shipping of various bulk commodities. Commercial vessels access the Port of West Sacramento via the Sacramento Deep Water Channel.

1.4.3 UTILITIES

Numerous major commercial pipelines traverse areas of Yolo County, serving as a pathway for pressurized natural gas, fuel, and other commodities. Pacific Gas & Electric provides natural gas service to all municipalities and many unincorporated communities within the county. In addition, propane service is also available to more remote areas of the county, where PG&E service is not readily available.

Pacific Gas & Electric (PG&E) provides electric power and natural gas to all areas of Yolo County. The Sacramento Municipal Utilities District (SMUD) also operates electrical lines through the County. The Wickland Pipeline and Kinder Morgan Pipeline transport hazardous liquids, primarily fuels, through the County.

Centralized wastewater and sewage treatment is managed by all four municipalities, UC Davis, and several special districts that cover various unincorporated communities. Solid waste collection and disposal is provided through established contracts with commercial providers, mainly Waste

Management, in most unincorporated areas of the county. Yolo County maintains a sanitary landfill site, located between Woodland and Davis, where solid waste is processed and buried. The landfill services household hazardous waste, business hazardous waste, electronic waste, and construction and demolition recycling. In addition the County landfill also receives and processes various recyclables for all areas of the county. A recycling and transfer station exists in Esparto.

1.4.4 HEALTH CARE

There are two hospital facilities in Yolo County. Sutter Davis Hospital is a technologically advanced acute care hospital with a strong offering of outpatient services and community outreach programs. The 48-bed hospital and its programs provide care and support to the residents of Davis, Dixon, Winters, Woodland, West Sacramento, Vacaville and rural communities throughout Yolo and Eastern Solano Counties. Woodland Memorial Hospital is the largest in the County and provides a full range of surgical and acute care medical services for both inpatient and outpatient visits. The hospital is a 120 bed, acute care, non-profit facility with an outstanding mix of state-of-the-art equipment and community health and wellness programs. Additionally, the hospital is recognized as the most comprehensive provider of women's and children's medical services in the county, equipped to handle high-risk pregnancies and high-risk infants, as well as the needs of children. This facility also houses a behavioral health unit, and has expanded their psychiatric unit.

The majority of the Yolo's population is located in the south and central portions of the County, with the largest concentration within the City of Davis. Other populated centers include West Sacramento, Winters, and Woodland. Yolo County has a large rural population with dispersed population centers including Brooks, Clarksburg, Dunnigan, Esparto, Knights Landing, Madison, Rumsey, Yolo, and Zamora. Many of these rural entities are located remotely from the designated Trauma Centers, complicating transportation decisions.

1.4.5 EDUCATION

There are several school districts in Yolo County:

- Davis Joint Unified School District
- Esparto Unified School District
- Washington Unified School District
- Winters Joint Unified School District
- Woodland Joint Unified School District

University of California at Davis

Student enrollment: 37,441 (2016)

Campus acreage: 5,300 acres (largest UC campus)

Number of Faculty: 1,888 (2017)

1.4.6 CRITICAL FACILITIES

The following assets have been designated by Yolo County as important to protect in the event of a disaster:

Location	Address	City
Communications Shed	3 rd & B Streets	West Sacramento

Location	Address	City
Probation/Storage	218 West Beamer	Woodland
Emergency Operations Center	120 W. Main Street, Suite E	Woodland
Probation Annex	218 West Beamer	Woodland
Public Works/Planning	292 West Beamer	Woodland
Communication Center	35 N. Cottonwood	Woodland
Yolo County Courthouse	725 Court Street	Woodland
Erwin Meier Administration Building	625 Court Street	Woodland
Cache Creek Water Treatment Plant	1475 Hwy 16	Rumsey
County Landfill	CR 104 & 28H	Woodland
Herbert Bauer M.D. Building	10 Cottonwood	Woodland
Monroe Detention Center	41797 Gibson Rd	Woodland
Leinberg Center	41797 Gibson Rd	Woodland
Sheriff Administration Office	41797 Gibson Rd	Woodland
Morgue	41797 Gibson Rd	Woodland
Airport – Hanger Building	CR95/CR29	Woodland
Airport Electrical Control & Storage Building	CR95/CR29	Woodland

1.5 WEATHER AND CLIMATE

The Central Valley climate can be described as Mediterranean. During the hot, dry, sunny summers, temperatures can exceed 100 degrees F on some days, however more often summer temperatures are in the low 90s. The Sacramento River Delta breeze usually cools overnight temperatures into the 60s. Spring and fall has some of the most pleasant weather in the state. The rainy season typically runs from late fall through early spring and fog season last from November through March. Average annual rainfall is about 17 inches.

1.6 ECONOMICS

Agriculture has been at the heart of Yolo County's identity, character, economy and way of life since the County's founding in 1850. Today, over 85 percent of county land is used for agriculture. Traditional growers on large-scale farms share the land with a growing number of diversified small farms (e.g. truck farms), as well as thriving livestock operations. Additionally, many farmers are implementing innovative new models for farm operation, crop choice and mix and marketing. Important contributors to the strength and success of agriculture in Yolo County include the County's longstanding commitment to agricultural preservation, its focus on directing growth into the existing cities and towns and the presence of UC Davis, which is an international leader in agricultural research and education.

Although past practices have served the county well, changing times have brought new challenges and require additional innovation. Urbanization pressures are likely to continue. Despite recent upturns, the agricultural economy has generally seen lower crop prices, higher costs and a loss of markets and agricultural infrastructure for more traditional crops in recent years. Production has remained level, despite technological advances. It is difficult for family farmers to respond to a growing body of regulatory requirements.

At the same time, the county continues to see growth in higher value crops, organic products, wine grapes and wineries, olives and specialty products such as grass fed beef. Farmers are finding new ways, such as value-added products, direct marketing and agricultural tourism, to diversify and augment their incomes. If Yolo County is to maintain its agricultural land base and a thriving agricultural economy, it needs to continue to adopt new approaches for farmland protection as well as strategies for improving farming as a livelihood.

Despite the closure of sugar beet mills and tomato canneries in recent years, Yolo County remains home to a large share of the region's top food processing companies. Current processing facilities include one tomato processor, two rice mills, nine wineries, eight nut and nut oil processors, three dairies, 16 seed labelers and a prune processor. These are distributed throughout the County, with most rice processing facilities, seed labelers and dairies located in the Woodland area and most walnut hullers located in Winters or Guinda. Wineries are located in Clarksburg, Brooks and the Hungry Hollow area north of Esparto.

In 2007, the total gross valuation of all agricultural crops produced was nearly \$454 million, up 22.5 percent from \$370 million in 2006. Recent trends and future outlook continue upward, although the gross production value of the County's leading crops fluctuates with annual changes in acreage and price. Seed crops and organic production continue their upward trend. Field labor, processing, transporting, marketing and other farm-related services boost the annual contribution of agriculture to the overall Yolo County economy to over \$1 billion.

Approximately 4,200 people were employed on Yolo County farms in 2006, about 4.2 percent of the 100,500 civilian jobs in the County, which is double the State average. This reflects a decrease of 200 jobs or 4 percent since 1995. To the extent that farm inputs are provided locally and outputs are processed locally, they generate additional income and employment for the County. Related uses such as agricultural support businesses, agricultural industrial uses, farm worker camps, stores selling items grown and manufactured in Yolo County, bed and breakfasts, lodges and wineries are also important contributors to the local economy. The income multiplier effect for agricultural uses is roughly 2.0.

Agricultural property and business activity provide a significant portion of the tax base in Yolo County. The tax revenues generated by the agricultural industry are generally lower than would be created by other uses on the same land, however, the cost to provide government services to farms is also lower. Regardless, additional diversification in its economic base would benefit local employment, businesses and the County budget.

SECTION 2.0: HAZARD IDENTIFICATION AND RISK ASSESSMENT

Yolo County identified hazards that affect the city and developed natural hazard profiles based upon the countywide risk assessment, past events and their impacts (see Figure 4).

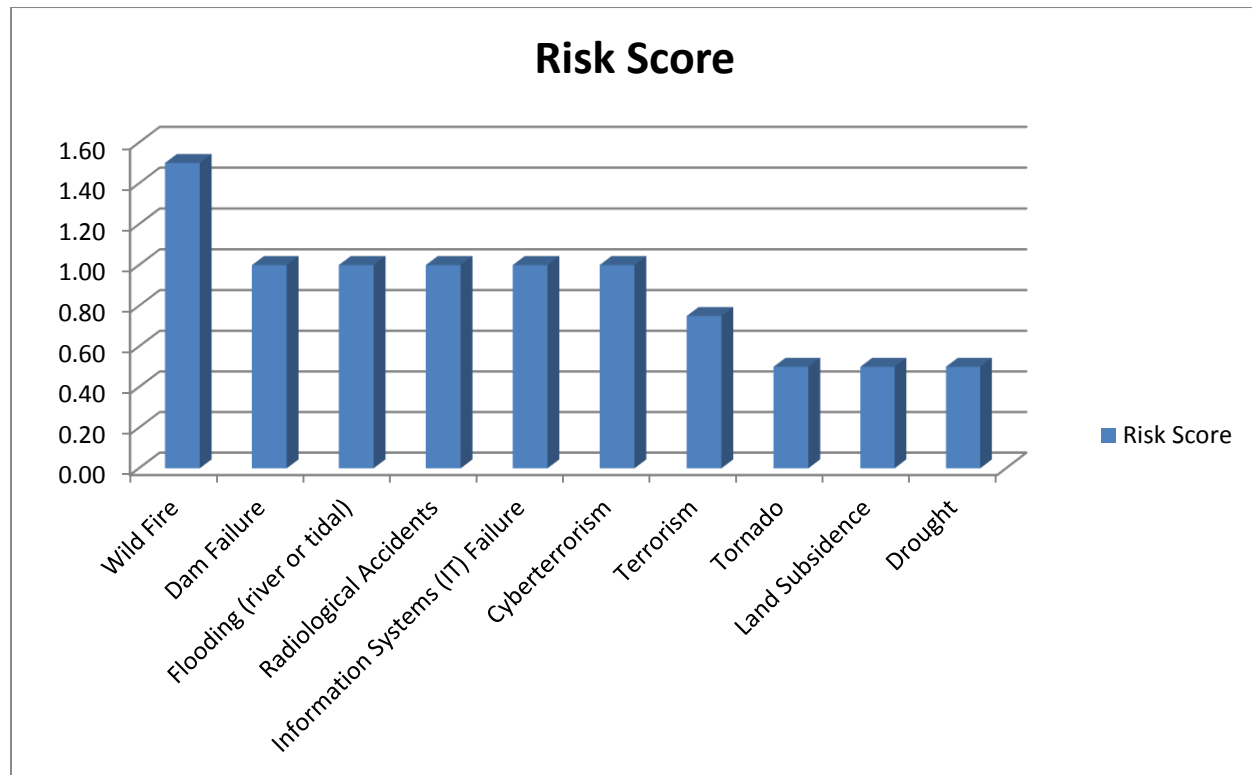


Figure 4: Yolo County Risk Assessment

Definitions for the rankings and a detailed explanation of the hazards can be found in the Hazard Identification and Risk Assessment of the Yolo County Hazard Mitigation Plan (HMP).

2.1 NATURAL HAZARDS

Yolo County identified natural hazards that affect the unincorporated county and developed natural hazard profiles based upon the countywide risk assessment, past events and their impacts. All of the natural hazards profiled in the Yolo County Hazard Mitigation Plan can affect the unincorporated area of the County and are detailed below. No additional hazards are profiled. Definitions for the rankings and a detailed explanation of the hazards can be found the Hazard Identification and Risk Assessment of the Yolo County Hazard Mitigation Plan.

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Flooding	Likely	Catastrophic

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Dam Failure	Unlikely	Catastrophic
Levee Failure	Unlikely	Catastrophic
Earthquake	Occasional	Critical
Landslide	Likely	Limited
Land Subsidence	Likely	Critical
Severe Weather - Fog	Highly Likely	Catastrophic
Severe Weather - Tornado	Occasional	Critical
Severe Weather – High Wind	Highly Likely	Critical
Severe Weather – Extreme Heat	Highly Likely	Critical
Severe Weather - Freeze	Likely	Critical
Volcano	Unlikely	Catastrophic
Wildfire	Likely	Catastrophic
Drought	Likely	Critical
Climate Change	Highly Likely	Critical

Table 1: Probability and Extent for Natural Hazards in the City of Davis

2.1.1 FLOODING

Flooding is a significant issue that affects unincorporated Yolo County. In Yolo County, a flood problem is the result of periods of moderate to heavy participation, although the extent, duration, and magnitude is affected by the way the land is developed. Flooding can cause loss of life and injury to persons, damage to structures and property, economic loss due to interrupted activity, inconvenience, and environmental damage. Addressing levee safety and flood hazards in areas within the 100- year floodplain will be necessary to enable growth and development to meet the county's needs. Policies restricting development in the 100-year floodplain also constrain the supply of land available for new development. The county's participation on an ongoing basis in the Central Valley Flood Protection Plan, the Regional Flood Management Plan, and the Floodway Corridor Protection Program is critical.

Localized flooding issues can occur throughout the County from rainfall events presenting minor but still significant issues to local districts. With excess rainfall, farmers modify their fields to facilitate proper drainage off their crops. Rainfall can also pose a risk to County roads and culverts because it impacts flow and "natural" drainage patterns. See Figure 5 for a map of road flooding frequency in Yolo County.

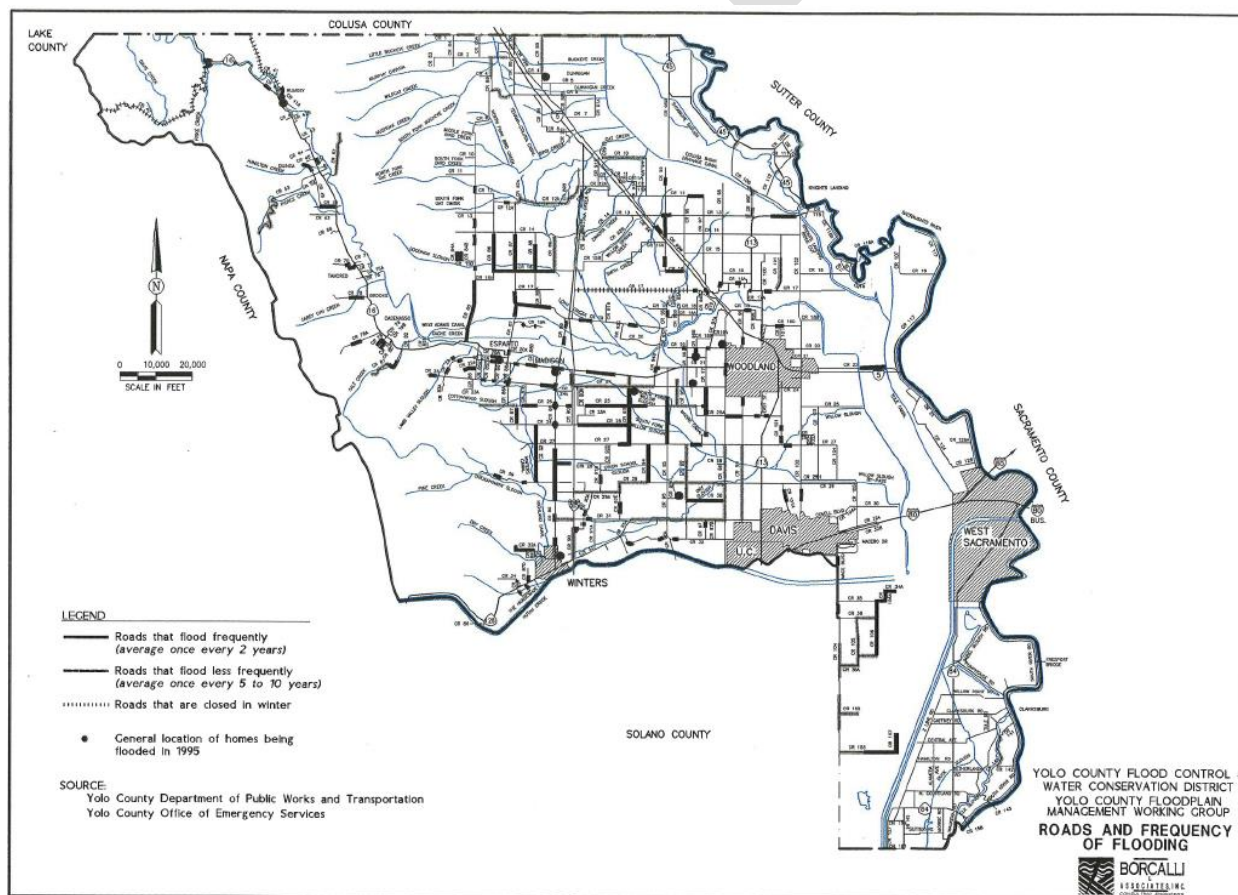


Figure 5: Road Flooding Frequency in Yolo County

The areas of the unincorporated county most vulnerable to flooding include Esparto, Madison, and West Plainfield where extensive flooding of canals and primary roads can cause damage to structures and homes. Flooding occurs from Willow Slough, Union School Slough, Chickahominy Slough, Dry Slough, and Airport Slough. This flooding can cause accelerated gully erosion of rangelands, increased downstream sedimentation, reduced reservoir storage capacity, reduced water quality, fisheries degradation, and increased phreatophytic vegetation. Flooding in the West Plainfield District can cause extensive damage to crops, farm buildings, businesses, residences, septic systems, wells, and vehicles. The YCFCWCD canal system acts as drainage conveyance until the canals are too full and overtop the banks in which the canals pose an issue for local landowners. During heavy rainfall and winds, the YCFCWCD's canal banks can erode and alter the conveyance channel causing Flooding is a periodic and ongoing concern within portions of the Capay Valley. Seasonal rains, coupled with a dependence on limited and relatively unimproved flood control systems to protect areas at risk from inundation places segments of Tribal lands at risk from periodic widespread flooding. The existence of local river systems (i.e. Cache Creek), also contributes to the problem of localized flooding on a periodic basis.

The combination of a narrow stream channel, extensive watershed, steep terrain, and other factors can contribute to extensive flows along the Cache Creek drainage, especially during the winter months when water is released from the Indian Valley Dam to provide space for impounded waters for flood control purposes. Controlled releases of water at the dam may combine with runoff from the watershed within the Capay Valley, resulting in flows exceeding the creek's normal containment capacity and localized flooding.

The impact from any flooding event will vary based upon a number of factors: source of the water; location of water flow; duration of rainfall or source release; topography; presence and/or effectiveness of flood control systems; changes in land use; vegetation; and

- Injury and death associated with people being trapped in rapidly moving waterways or caught unaware during slow rate of rise conditions
- Injury and death for individuals attempting to ford (in vehicles or on foot) submerged roadways
- Damage Capay Valley roadways, bridges and other transportation structures affecting mobility and the ability for people to evacuate flooded areas
- Release of hazardous materials and start of fires within damaged or affected structures.
- Damage Capay Valley buildings and structures in the pathway of rising flood waters
- Public health hazards from contamination of potable water sources; damage to sanitation systems; long term presence of standing water; vector infestation; and introduction of hazardous materials contaminants.

Specific spots near tribal lands that have flooded in the past are as follows:

- The unincorporated area of Rumsey along Hwy 16 in 1986
- Various spots of localized flooding across Hwy 16 and O Leary Ln in Rumsey to Capay at least 6" deep in 24 hr period
- Near the Capay Valley Fire District on Hwy 16 in Brooks;

- The Town of Madison in 2017

See the following figures for community floodplains throughout the unincorporated County:

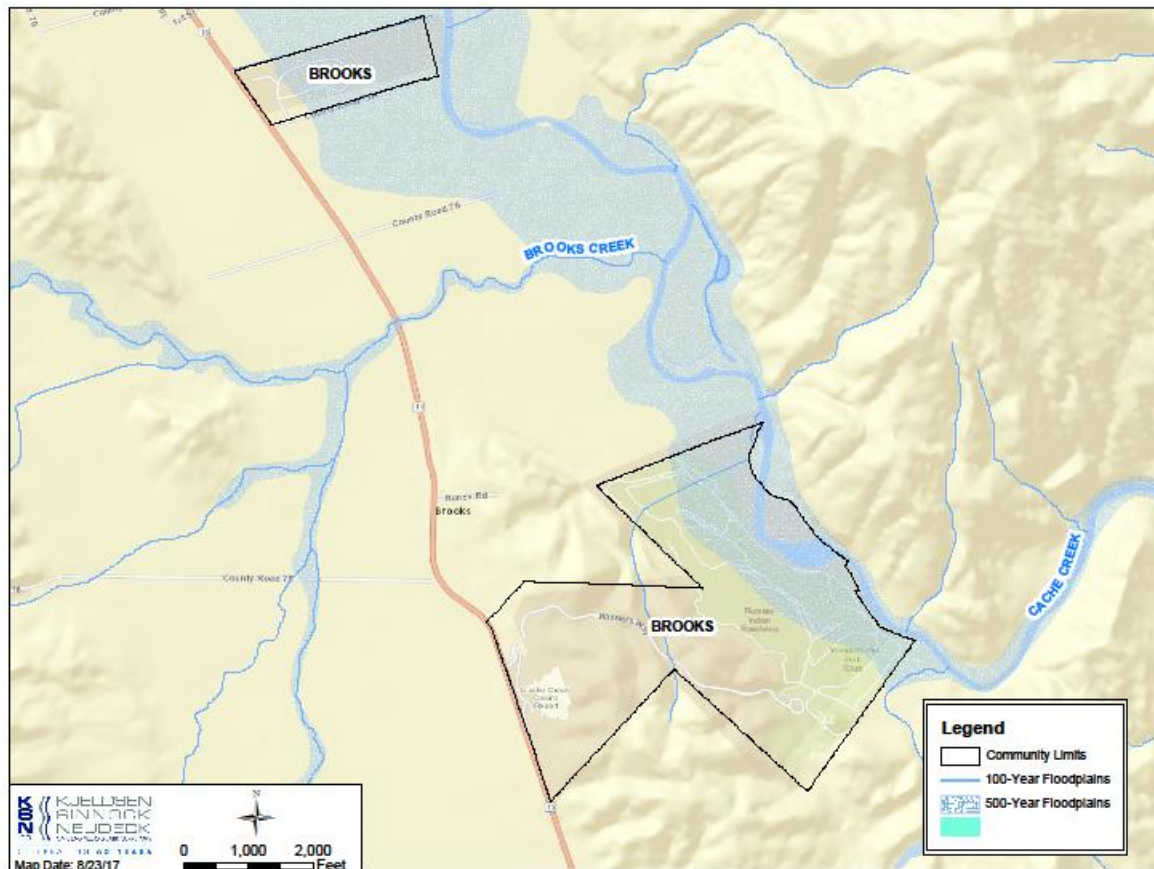


Figure 6: Brooks Floodplain

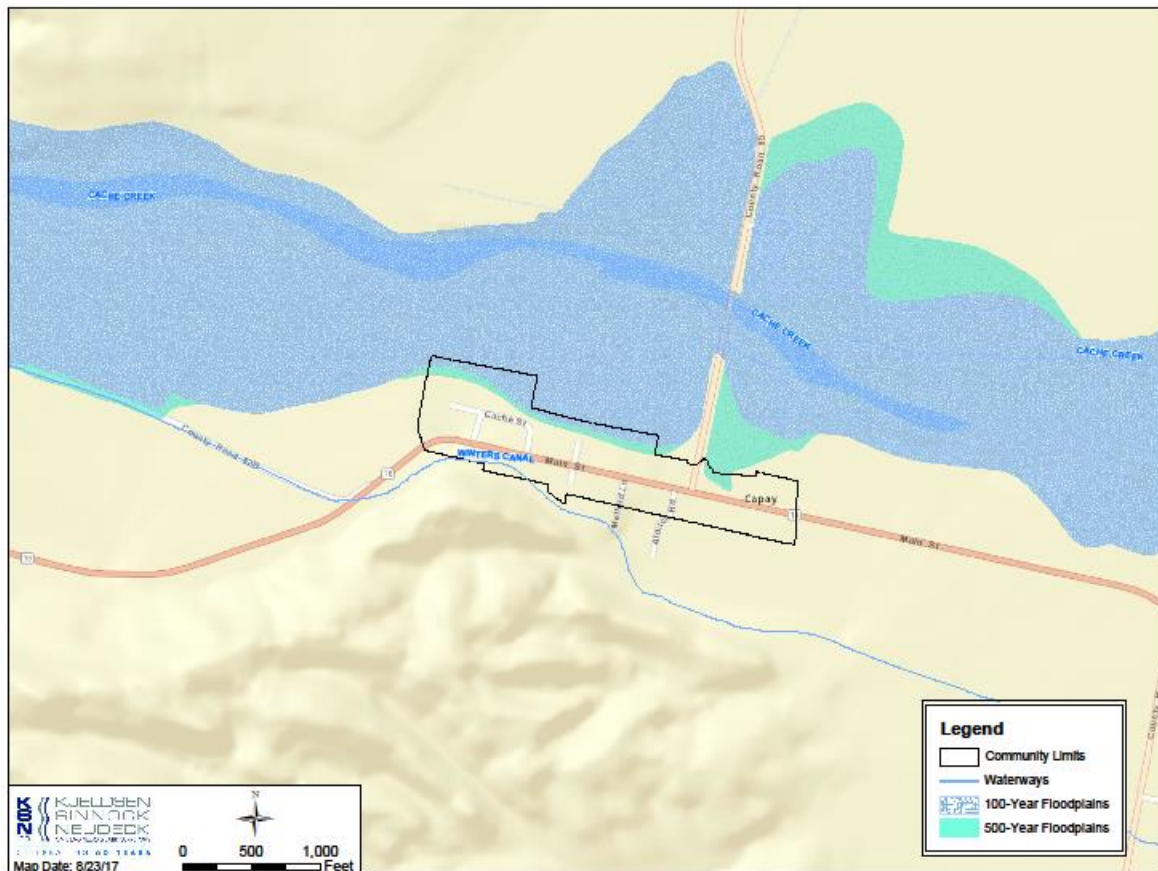


Figure 7: Capay Floodplain



Figure 8: Clarksburg Floodplain



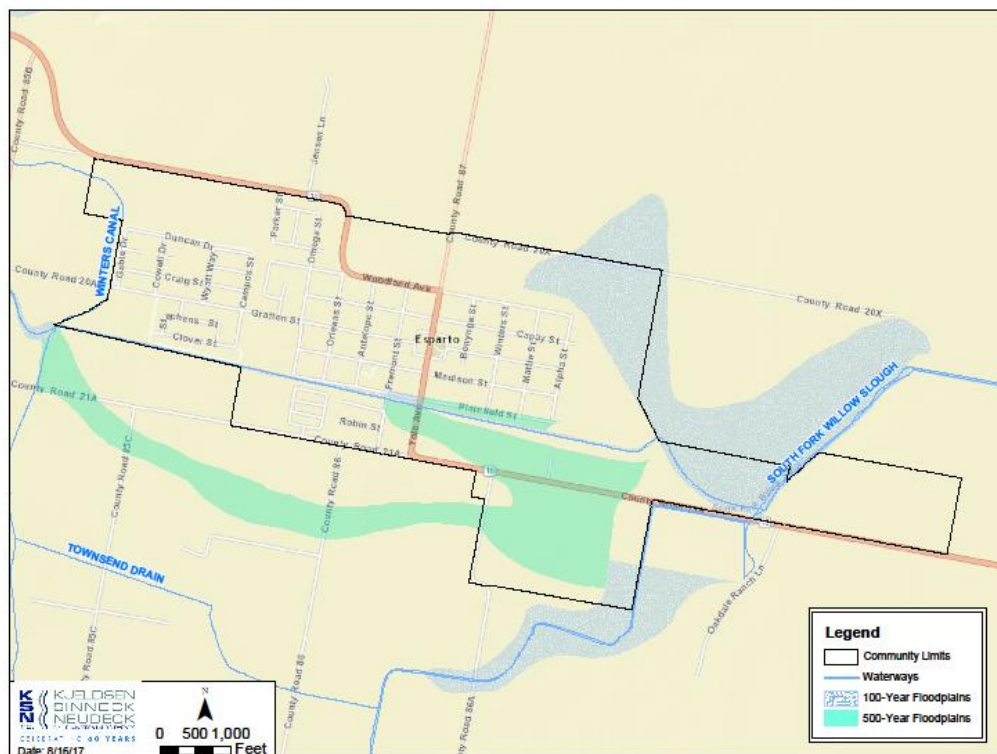


Figure 10: Esparto Floodplain

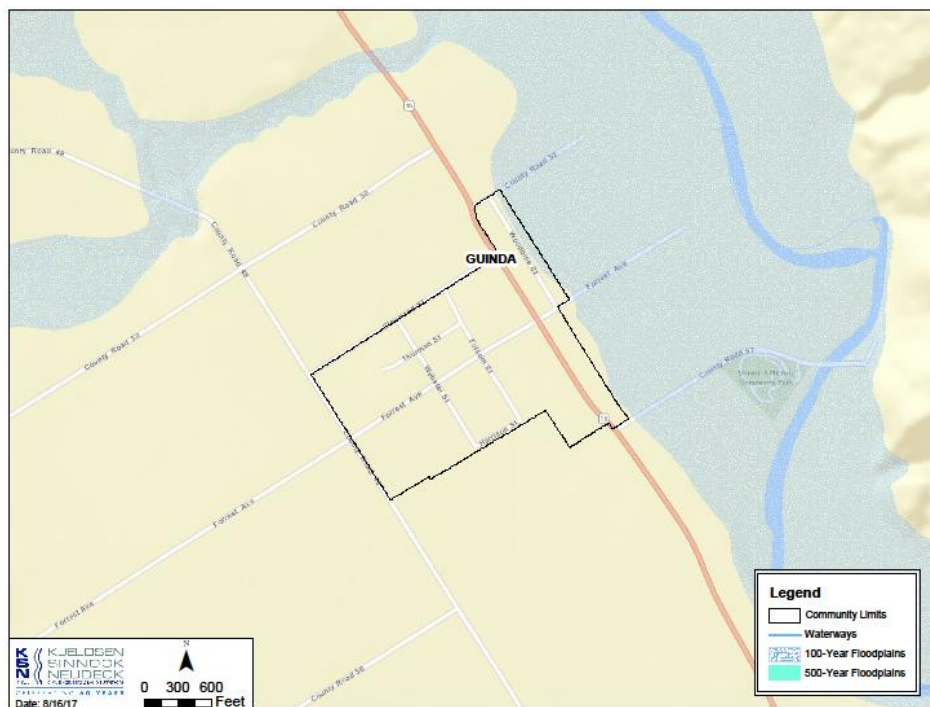


Figure 11: Guinda Floodplain

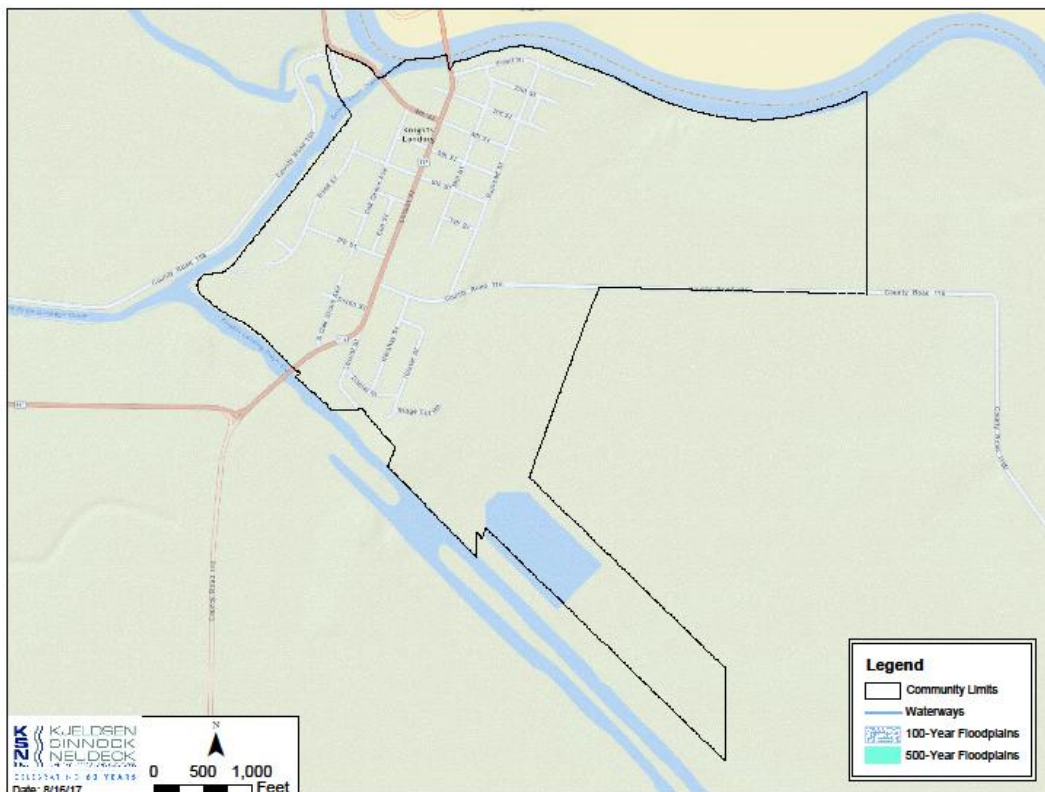


Figure 12: Knights Landing Floodplain

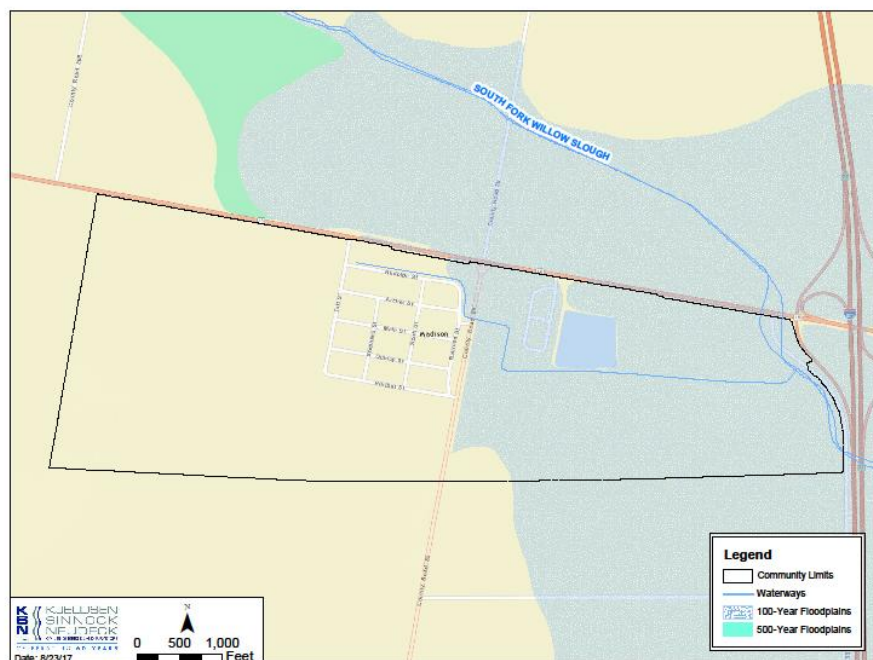


Figure 13: Madison Floodplain



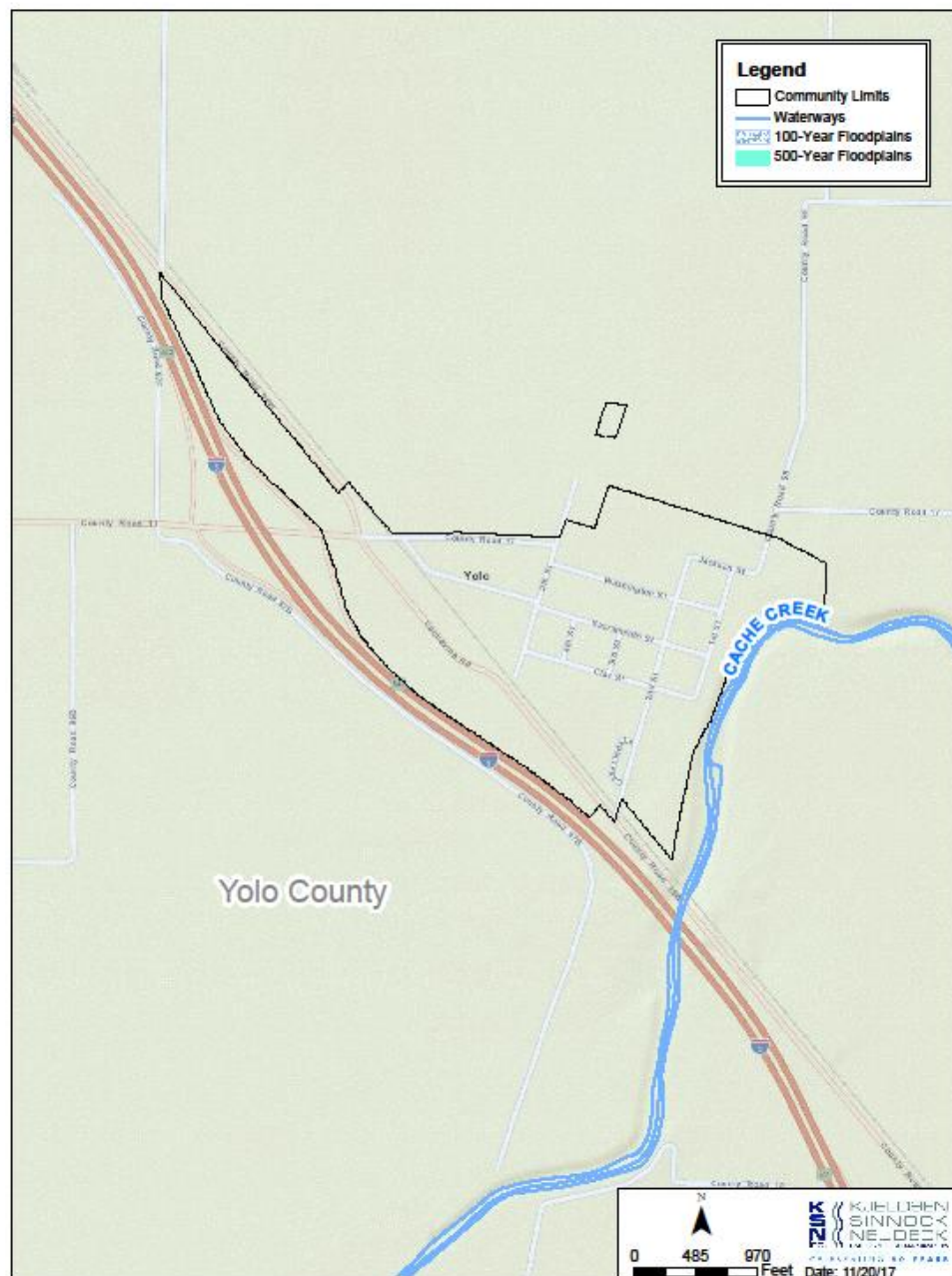


Figure 16: Yolo Floodplain

2.1.2 DAM FAILURE

In the area of the unincorporated County there are dams of various types of construction. The failure of any one would cause some degree of flooding in the unincorporated County. Failure of a dam structure may result due to impact from strong ground motion, such as following a major earthquake, below are some of the dams that could affect the county:

- | | |
|---------------------|------------------|
| • Shasta Dam | Sacramento River |
| • Oroville Dam | Feather River |
| • Folsom Dam | American River |
| • Monticello Dam | Putah Creek |
| • Indian Valley Dam | Cache Creek |

Maps associated with each dam show specific inundation areas. In most cases, areas requiring evacuation are many minutes to days downstream.

For other than catastrophic failure of a dam, notification of a potential problem would be initiated by the agency responsible for maintaining the dam in question. Depending upon the dam, that notification might be provided directly to Yolo County. For a catastrophic failure, notice could come as described above, from citizens or even from news media. The more lead time available the more chance that notifications would come from normal sources.

The following is more detailed information about the dams, the times and areas given for potential inundation are the best available estimates. Actual inundation times and areas may vary.

Shasta Dam

Shasta Dam is a concrete gravity dam. The reservoir (Lake Shasta) has a maximum storage capacity of 4,552,000 acre-feet. The dam is located in Shasta County. Dam failure would result in varying degrees of inundation to eastern Yolo County including Knights Landing and Clarksburg.

Oroville Dam

Oroville Dam is an earth-filled dam. The reservoir (Oroville Lake) has a maximum storage capacity of 3,500,000 acre-feet. The dam is located in Butte County. Dam failure would result in varying degrees of inundation to eastern Yolo County including Knights Landing.

Folsom Dam

Folsom Dam is a concrete and earth dam. The lake has a maximum storage capacity of 977,000 acre-feet. The dam is located in Sacramento County, on the American River. Dam failure would result in some degree of inundation to the eastern side of the County.

Nimbus Dam

Nimbus Dam is a concrete gravity dam. The reservoir (Lake Natoma) has a maximum storage capacity of 8,760 acre-feet. The dam is located in Sacramento County. All actions relating to a failure of Nimbus Dam would be identical to those required by a failure of Folsom Dam except the resulting inundation would be less severe.

Monticello Dam

Monticello Dam is a thin arch concrete structure 270 feet high. It impounds a maximum of 1,602,300 acre-feet creating Lake Berryessa in Napa County, 10 miles west of Winters. In the event of failure, Monticello Dam presents a high hazard to downstream areas and extensive loss of life and property would likely occur.

Indian Valley Dam

Indian Valley Dam is an earth-filled dam producing a lake of 359,000 acre-feet storage capacity (maximum). The dam is located in Lake County, northwest of Yolo County, on the North Fork of Cache Creek. Depending upon the rate of discharge following dam failure the area of potential inundation extends along the Cache Creek all the way to the I-80 and the Yolo Bypass. Unincorporated communities in the Capay Valley are vulnerable to an Indian Valley Dam failure.

The extent of local damage and destruction associated with failure of a major dam will range from catastrophic to marginal. The sudden failure of an earthen or concrete dam of any significant size would result in the release of hundreds of thousands of acre-feet of water, depending upon the level of impoundment at the time of failure. It would be anticipated that areas directly downstream from the face of a failed dam would be immediately inundated and that devastation would be substantial. The further a location is from the dam would result in a reduced impact over time, although geography and the placement of diversionary facilities and other improvements would play a part in how floodwaters would be channeled.

2.1.3 LEVEE FAILURE

See the Yolo County Hazard Mitigation Plan for a detailed assessment on levee vulnerability to the unincorporated areas of Yolo County.

2.1.4 EARTHQUAKE

Earthquakes can occur anywhere in unincorporated Yolo County. The highest likelihood of a major earthquake occurring is in the Capay Valley as well as the western portion of the county, near the unincorporated communities of Madison and Esparto. These are seismically active areas where previous earthquakes have occurred. In addition, the effects of a Bay Area earthquake can be critical to catastrophic for Yolo County. The Interstate 80 corridor lies directly in Yolo County and would be a primary evacuation route for people leaving the Bay Area. This would greatly impact the county in having to support the Bay Area with mutual aid and evacuation support such as food, lodging and other resources.

2.1.5 LANDSLIDE

Unincorporated Yolo County is the only area of the County where landslides are likely to occur. The primary area for landslide activity is the State Route 16 corridor through the Cache Creek Canyon as well as State Route 128 along Putah Creek. Landslides occur in the Cache Creek Canyon every year, and State Route 16 is usually closed in the winter from Rumsey to the Colusa County line. The Cache Creek Regional Park Campground as well as several other day use areas are located in the Cache Creek Canyon. People frequenting them could become adversely affected by a landslide that closes State Route 16. An earthquake has the potential to cause landslides in this area, as had occurred with the 1906 San Francisco Earthquake. The earthquake caused a significant landslide that dammed Cache Creek, which eventually flooded the town of Rumsey.

2.1.6 SEVERE WEATHER

HIGH WIND

High wind could occur anywhere in unincorporated Yolo County and could be compounded by atmospheric river events. High winds can fell trees, which can cause subsequent damages to cars and structures as well as critical infrastructure such as power lines and water mains throughout the county. Power outages in the unincorporated county from high wind occurs frequently.

FOG

Fog can be prevalent throughout the unincorporated County, particularly along the Sacramento and adjacent river roads. Impacts from fog can be compounded in due the presence of four major highways including Interstate 80, Interstate 5, Interstate 505, and State Route 113, which run through unincorporated parts of the county. The potential for serious accidents exist due to fog, which could result in injuries and fatalities to motorists and first responders.

TORNADO

A tornado could touch down anywhere in the unincorporated county. Though tornados in the Central Valley of California are often rare and of low intensity (EF-0 or EF-1), the potential exists for an EF-2 tornado to touch down in the unincorporated County as it did in Sacramento in 1978. While unlikely, impacts from such a tornado could be extensive depending on where the tornado touches down and how long it travels. Roofs of structures could be significantly damaged, trees could be knocked over, and cars could be overturned. A less intense EF-0 or EF-1 tornado could cause flying debris and damage to fences. Tornadoes can also produce hail, which can be damaging to cars and buildings.

EXTREME HEAT

Extreme heat can occur at any location in the unincorporated County, though it is usually warmer in the Capay Valley. Temperatures can feel warmer in towns due to the widespread presence of concrete and asphalt, which stores heat longer. Heat waves can cause power outages and can sicken people who are exposed to high temperatures too long, particularly infants the elderly.

FREEZE

Freezing temperatures can occur at any location in the unincorporated County. Prolonged exposure to the cold can cause frostbite or hypothermia and can become life-threatening. Infants and the elderly are most susceptible. Pipes may freeze and burst in homes or buildings that are poorly insulated or without heat. Extreme cold can disrupt or impair communications facilities.

2.1.7 VOLCANO

The unincorporated county is not located close to any active volcanoes where there is the threat of a lahar flow. The closest volcano to the unincorporated County is the Clear Lake/Mt. Konocti Volcanic Field. The unincorporated County could be impacted by ash fall, however, if there were to occur a significant eruption of any of the active volcanoes located throughout the state. Particular areas of concern include the Mt. Shasta, Lassen Volcanic Center, Medicine Lake, and the Clear Lake/Mt. Konocti Volcanic Field. People susceptible to respiratory illnesses would be most impacted by ash fall.

2.1.8 WILDFIRE

The unincorporated County includes the western, more mountain areas of the county where large wildfires are more apt to occur. A wildfire in this area has the potential to significantly impact the Capay Valley, and could result in evacuations. Since the last plan update, several large wildfires have burned in the Blue Ridge Mountains between Yolo, Napa, and Lake Counties. They have included the 2014 Monticello Fire, the 2015 Wragg Fire, the 2015 Rocky Fire, the 2015 Jerusalem Fire, the 2016 Cold Fire, and the 2017 Winter Fire. See figure X for a map of historic wildfires in Yolo County. Large fires along State Route 16 can impact local resources and access to the communities along the highway. The Yocha Dehe Casino is a large economic asset to the area. Grass fires are also of concern in the unincorporated areas of the county. A 10 acre grass fire in Dunnigan in 2016 destroyed a house, and the Hardwoods Subdivision is of particular concern for a grass fire.

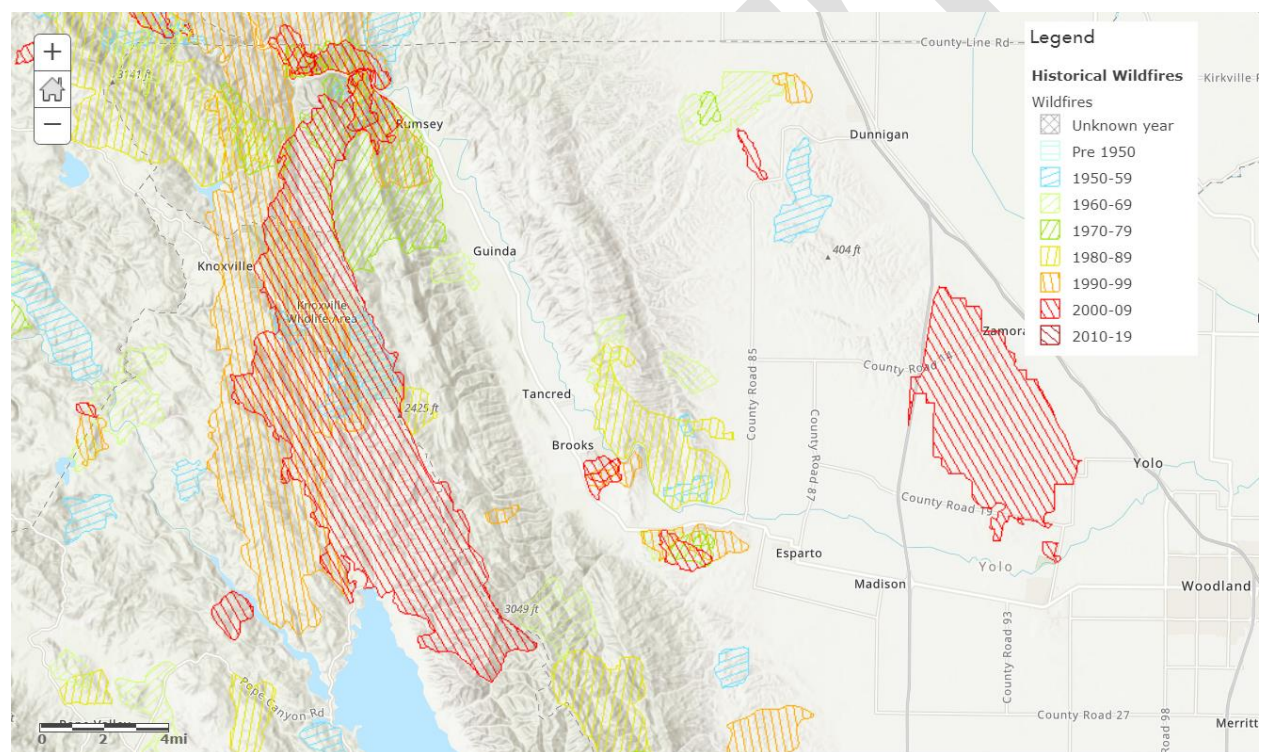


Figure 17: Historic Wildfires in Yolo County
Source: Yolo County GIS

2.1.9 DROUGHT

The most significant impacts associated with drought in Yolo County are those related to water intensive activities such as agriculture, wildfire protection, municipal usage, commerce, tourism, recreation, and wildlife preservation. Voluntary conservation measures are typically implemented during extended droughts. A reduction of electric power generation and water quality deterioration are also potential problems. Drought conditions can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding. Historical reports have

estimated that agriculture is responsible for approximately 95 percent of the County's total groundwater use.

In the unincorporated County, droughts have been recorded in 1976-1977, 1988-1992, 2007-2009, and 2014-2016. Groundwater levels reached the lowest point ever recorded in the 1976-1977 drought, and the second lowest point ever recorded in 2014. Collapsed well housings in the Knights Landing area occurred during the height of the drought.

The Sustainable Groundwater Management Act (SGMA) establishes a framework for sustainable, local groundwater management. SGMA requires groundwater-dependent regions to halt overdraft and bring basins into balanced levels of pumping and recharge. The Yolo County Flood Control and Water Conservation District is the oversight agency for SGMA in the Yolo Sub-basin. See Figure 18 for a graph of groundwater levels in Yolo County from 1975-2017. Average fall 2017 groundwater level in Yolo County is 43 feet depth to water.

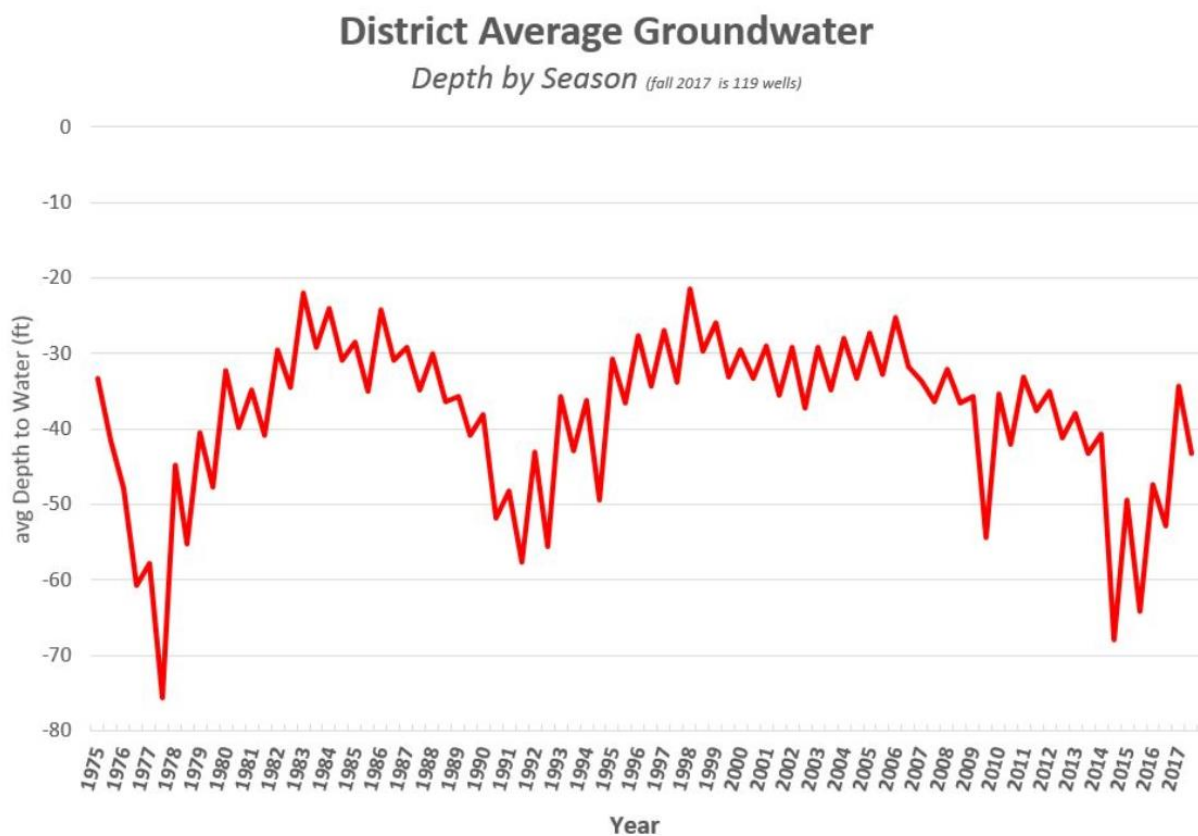


Figure 18: Average Groundwater Depth in Yolo County 1975-2017

2.1.10 CLIMATE CHANGE

Yolo County has recognized the need to plan for climate change, and has adopted the Yolo County Climate Action Plan. Yolo County has a strong commitment to the reduction of greenhouse gas (GHG) emissions, which is balanced with its strong commitment to agriculture and the role of agriculture in reducing GHG emissions. This is the result of the County's long-term advocacy of

responsible growth, agricultural and open space preservation and energy conservation. With regard to climate change, this history goes back to 1982, when the County adopted a countywide Energy Plan, one of the first of its kind in the State. More recently, in 2007, the Board of Supervisors unanimously approved a resolution to participate in the Cool Counties Climate Stabilization Declaration and committed to reduce GHG emissions by 80% by 2050. The 2030 Yolo County General Plan expanded on this established tradition and contains more than 350 climate change-focused policies and actions. General Plan Action CO-A117 calls for the development of a GHG Emissions Reduction Plan and/or Climate Action (CAP) for the County, to reduce GHG emissions, and to address economic and social adaptation to the effects of climate change. The CAP builds on the General Plan's vision and outlines detailed strategies and measures to achieve these goals and contribute to State and international climate protection efforts.

2.2 HAZARD RISK ASSESSMENT – TECHNOLOGICAL AND HUMAN-CAUSED HAZARDS

2.2.1 AGRICULTURAL PESTS AND DISEASES

The unincorporated County is vulnerable to myriad agricultural pests and diseases. Some of the most common threats include the yellow starthistle, Japanese dodder, walnut twig beetle, and the California ground squirrel. Given the County's large agricultural community, these pests and diseases pose major threats.

2.2.2 EPIDEMIC/PANDEMIC

The unincorporated County can experience the same epidemics and pandemics that occur throughout the rest of Yolo County. Mitigation measures would be taken under the general direction of the Yolo County Public Health Officer. Yolo County has prepared for previous potential outbreaks including swine flu, avian flu and ebola. Preparation will vary based on the nature of the disease, but primarily consists of planning for a diminished workforce, treating large numbers of affected citizens, assistance with vaccine clinics due to large crowds, and personal prevention measures.

2.2.3 HAZMAT INCIDENTS

RADIOLOGICAL

The unincorporated County does not have any meaningful exposure to a nuclear power plant. It could be affected, however, by a transportation accident, a terrorist incident or war.

CHEMICAL

There are numerous facilities in the unincorporated County that house chemical agents, including anhydrous ammonia, and there are several transportation routes where a chemical incident could occur. Yolo County Environmental Health is the CUPA Regulatory Agency for Yolo County, and helps the County prepare for a chemical emergency.

BIOLOGICAL

A biological incident or attack would cause a strain on the emergency health system including emergency response, local hospitals and other health care facilities. See the Yolo County Hazard Mitigation Plan for the different criteria of biological agents.

2.2.4 TRANSPORTATION ACCIDENTS

VEHICLE ACCIDENTS

There are three interstates and several major state highways that traverse Yolo County. A mass fatality and/or hazmat incident could occur on any one of Yolo County's major highways including all of the interstates as well as State Highways 113, 16, and 84. In Yolo County, fog can play a significant role causing a multi-vehicle accident.

TRAIN ACCIDENTS

A train accident could occur on any of the rail lines that traverse the unincorporated County, including the Union Pacific and Sierra Northern Railway lines which pass through unpopulated areas of the unincorporated County. The California Northern Railroad passes through the unincorporated communities of Dunnigan, Yolo, and Zamora where an accident could impact one of these communities.

AIRPLANE ACCIDENTS

The two small airports that are located in the unincorporated County include Watts-Woodland Airport and the Yolo County Airport. An incident could occur at any one of these airports. Several private airfields also exist in Yolo County. There have been several incidents where crop dusters have collided over the unincorporated County. Flight paths out of Sacramento International Airport traverse parts of the unincorporated County, and there could occur a crash of a large aircraft in an unpopulated area.

2.2.5 POWER/UTILITY FAILURE

Numerous transmission lines and pipelines traverse Yolo County, and an incident could occur along these lines are at a junction. Power failure often occurs in areas of the unincorporated County, including Dunnigan and Clarksburg, due to high winds and rain events.

2.2.6 COMMUNICATIONS/IT FAILURE

There are no communications in the Capay Valley, and no cell phone service in the Cache Creek Canyon. This could hamper response efforts in an incident.

2.2.7 TERRORISM

The threat of terrorism in any of the communities in the unincorporated County is considered low as these areas aren't heavily populated. Agroterrorism could occur throughout the unincorporated County, due to the large presence of farmland and agricultural commodities. This could significantly impact the local economy and may present a health hazard to local residents.

2.2.8 CIVIL DISTURBANCE

The threat of civil disturbance in any of the communities in the unincorporated County is considered low as these areas aren't heavily populated. A small disturbance could occur for political reasons or because of a local issue.

2.2.9 URBAN CONFLAGRATION

Fire could potentially sweep through any of the unincorporated cities in Yolo County as a result of a wildfire or grass fire, though infrastructure in most of these areas is spread out. Fire protection districts located throughout Yolo County would be able to respond quickly to an incident, but could be hampered by weather conditions.

2.3 PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

The County of Yolo participates in the NFIP and continues to enforce the compliance with the NFIP through their Flood Plain Management Ordinance. However, as in much of California, FEMA is working with local governments to refine and remap the floodplains. These changes to flood mapping and zoning in Woodland may result in additional properties needing to be insured and evaluated in future plans.

CID #	Community Name	FHBM Identified	FIRM Identified	Current Effective Map Date	Reg-Emer Date	Tribal
060424	City of Davis	11/08/77	11/15/79	06/08/10	11/15/79	No
060728	City of West Sacramento		03/05/90	01/19/95	03/13/90	No
060425	City of Winters	01/23/74	12/01/78	06/18/10	12/01/78	No
060426	City of Woodland	02/01/74	10/16/79	05/16/12	10/16/70	No
060423	Yolo County	10/18/77	12/16/80	05/16/12	12/16/80	No

Data obtained from the FEMA Community Status Book Report, <http://www.fema.gov/fema/csb.shtm>

Below is the NFIP policy and claims statistics for the County of Yolo as of March 2013. The NFIP claims statistics are historical back to 1982/1983 when NFIP started collecting this data.

Community	Total Premium	Current Policies	Total Coverage	Flood Losses	Dollars Paid Historical
Unincorporated Areas	\$966,689	1,112	\$273,037	194	\$2,275,154

As of 2017 there are 34 repetitive loss properties and zero severe repetitive loss properties in unincorporated Yolo County. Total RLP payouts are \$1,432,329.80.

Yolo County participates in the Community Rating System and currently holds a Class 8 rating.

SECTION 3.0 MITIGATION STRATEGY

3.1 CAPABILITY ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capability assessment is divided into five sections: regulatory, administrative and technical, fiscal, outreach and partnerships, and other mitigation efforts.

3.1.1 REGULATORY CAPABILITY

The legal and regulatory capabilities of each jurisdiction are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of each jurisdiction. Examples of legal and/or regulatory capabilities can include: a jurisdiction's building codes, zoning ordinances, subdivision ordinances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

Yolo County Regulatory and Planning Capabilities

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Building code	√	√	√	√	√	√
Zoning ordinance	√	√	√		√	√
Subdivision ordinance or regulations	√	√	√		√	
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	√	√	√	√	√	√
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	√	√	√	√	√	√
Site plan review requirements	√	√	√	√	√	√
General or comprehensive plan	√	√	√	√	√	
A capital improvements plan	√	√	√		√	√
An economic development plan	√	√	√	√	√	√
An emergency response plan	√	√	√	√	√	√
A post-disaster recovery plan						√
A post-disaster recovery ordinance						

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Real estate disclosure requirements	√	√	√	√	√	
Habitat Management Plan	√	√	√	√	√	
Master Drainage, Sewer, Water, & Reclaimed Water	√	√	√	√	√	√
Redevelopment Master Plan	√	√	√		√	

Source: Steering Committee

Yolo County General Plan

The 2030 Countywide General Plan establishes County policy regarding planned land uses and infrastructure within the unincorporated areas of Yolo County. The 2030 General Plan was adopted by the Board of Supervisors on November 10, 2009 and has been amended several times since.

Yolo County EOP 2017

The Emergency Operations Plan addresses the planned response to emergency situations associated with natural disasters, technological incidents, human caused events and national security emergencies in or affecting Yolo County. The plan establishes the emergency management organization required to mitigate any significant emergency or disaster affecting Yolo County; identifies the policies, responsibilities, and procedures required to protect the health and safety of communities, public and private property, and the environmental effects of natural, human caused and technological emergencies and disasters; and establishes the operational concepts and policies for disaster response and recovery. This plan will be revised and updated in 2018 to meet local, state and federal needs.

Yolo County Delta, Flood Protection & Infrastructure Projects Plan

A prioritized list of short-term, medium, and long-term projects for the improvement of infrastructure and flood protection within the Yolo County Delta. This is a 20-year plan for the County. The list includes: project description, estimated funding amount, proposed funding source, and the region the project is located.

2011 Flood Management Workplan

A list of current lead agencies, cost, and statuses of both physical and legislative level projects currently being worked on to improve floodplain management in Yolo County.

Yolo County Habitat Conservation Plan/Natural Community Conservation Plan

A plan inclusive of biological goals, geographic area, plan duration, species to be addressed, and actions to be permitted to protect the natural resources of Yolo County.

Emergency Management/Preparedness Program

The Office of Emergency Services (OES), a program within the County Administrator's Office, is responsible for coordinating the planning for, response to, and recovery from all-hazards that may impact Yolo County. These duties include:

- Identification and assessment of potential hazards and threats
- Development, implementation, and maintenance of appropriate contingency plans
- Development and presentation of community and interagency preparedness programs
- Coordination of interagency emergency management for the Yolo Operational Area
- Maintenance and management of the county Emergency Operations Center (EOC) in support of emergency response operations

Other plans and ordinances such as the Fire Management Plan, the Central Valley Food Protection Plan, the Regional Flood Management Plan, the Emergency Services, Fire Prevention, Flood Management and other important ordinances to the County as documented in the **Regulatory and Planning Capabilities** table are located on Yolo County's website at www.yolocounty.org.

3.1.2 ADMINISTRATIVE AND TECHNICAL CAPABILITY

The **Administrative and Technical Capability** table identifies the county personnel responsible for activities related to mitigation and loss prevention in Yolo County. Many positions are full time and/or filled by the same person. A summary of technical resources follows.

Unincorporated Yolo County Personnel Capabilities

Personnel Resources	Department/Position
Engineer and/or Planner with knowledge of land development/land management practices	Planning and Public Works Department
Professional trained in construction practices related to buildings and/or infrastructure	County Community Development Agency/County Building Official, Planning and Public Works Department
Full time Building Official	County Community Development Agency/County Building Official
Floodplain Manager	Planning and Public Works Department
Emergency Manager	County Office of Emergency Services
Grant Writer	YES various departments
Other Personnel Resources such as Personnel skilled in GIS and/or HAZUS	County Administrative Office, IT Department, Sheriff's Office, and other County Departments and Agencies

Source: Steering Committee

3.1.3 FISCAL CAPABILITY

The **Fiscal Capability** table shows specific financial and budgetary tools available to the jurisdictions such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact

fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

Unincorporated Yolo County Available Financial Tools and Resources

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Community Development Block Grants	√	√	√	√	√*	
Capital improvements project funding	√	√	√	√	√	
Authority to levy taxes for specific purposes	√	√	√	√	√**	
Fees for water, sewer, gas, or electric service	√	√	√	√	√	
Impact fees for homebuyers or developers for new developments/homes	√	√	√	√	√	
Incur debt through general obligation bonds	√	√	√	√	√**	
Incur debt through special tax and revenue bonds	√	√	√	√	√**	
Incur debt through private activity bonds	√	√	√	√	√**	
Withhold spending in hazard-prone areas	√	√	√	√	√	

* Subject to grant from State

** Subject to voter approval

Source: Steering Committee

3.1.4 COMMUNITY OUTREACH

Yolo County also participates in the 2-1-1 Community Information program – *2-1-1 Yolo*. This is an online community information database that is available to Yolo County citizens and agencies, and provides a vast amount of information on topics that support and enhance the quality of life. The *2-1-1 Yolo* program can also be used as a referral service during periods of emergency, as well as a supplemental conduit for the release of disaster preparedness information and assistance to impacted communities.

The Yolo County Comprehensive Economic Development Strategy Committee meets regularly and works with the cities, county, state, utilities, existing businesses, financial institutions, and other interested parties to ensure that economic development programs are meeting community goals. The committee works to create job opportunities and to increase the bottom line for businesses through development and retention assistance. The committee could be an important partner in outreach efforts to educate businesses about mitigation and emergency preparedness and in economic recovery planning.

3.2 FUTURE DEVELOPMENT TRENDS

According to SACOG projections, the population of unincorporated Yolo County is anticipated to grow by an average of 1.2 percent annually while the overall County population is projected to grow at an average annual rate of 1.8 percent. The table **Population Projections** shows the county's overall population growth from 2005 to 2015. Growth in the unincorporated County is not expected to occur evenly across communities, with higher growth rates projected for Dunnigan and Knight's Landing as compared to Clarksburg, Madison, and Esparto.

Tourism is an increasing component of the Yolo County economy, and promoting its continued growth is a high priority. Further, since many of the county's best rural tourism opportunities are in the unincorporated area, and many are in public ownership (e.g. BLM, County Parks, other open space), the county should work closely with both public and private landowners and operators to ensure expanded tourism opportunities.

One of the future goals is to emphasize the revitalization of Yolo County small downtowns as a key economic development activity. This includes improving local retail and services in Esparto, Knights Landing, Madison, and other communities. It also includes ensuring that the proposed Dunnigan Hills project develops with a healthy mix of jobs, housing and other community amenities for balanced growth. These initiatives rely on the support of several grant programs to help with providing public facilities, infrastructure, and affordable housing and will need increased mitigation in the area of public outreach. A new park and aquatic center is being planned for Esparto in 2019.

Because of recent economic and technology shifts, there is now a window of opportunity to revitalize many of the Yolo County unincorporated communities. Older, boarded up commercial buildings have a chance to be commercially viable, and each downtown has the opportunity to serve its local population. Esparto, for instance, has seen the approval of 500 new housing units since 2001 and is benefiting from the local spending power the new residents bring. Even so, millions of dollars are being spent by Esparto residents in Woodland and Vacaville, where they work. Esparto also has an active community-led revitalization program, which will help the community capture some of that leakage. Like Esparto, Capay and Brooks also have limited commercial development potential, driven by Casino expansion efforts.

Clarksburg has the renovated Old Sugar Mill and the increased visitation that its attraction is bringing. Dunnigan has newer truck stops and gas stations, and is slated for an entire new town of up to 7,500 homes. Madison, the Highway 5 communities of Yolo and Zamora, and Knights Landing have some potential as their populations and highway traffic expand.

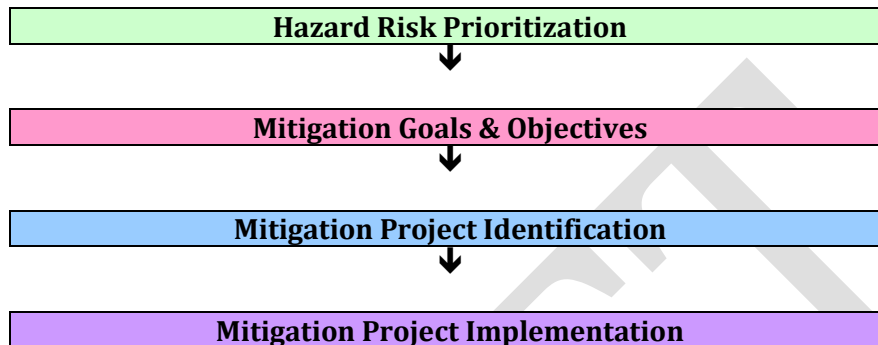
The retail and service markets in most downtowns are primarily local, and only small retail and office uses are likely to be supportable. Because of limited markets, the larger downtown parcels and vacant buildings cannot easily support a single use; so mixed-use zoning makes sense for added flexibility. Those downtowns along I-5 can also benefit from maximizing highway commercial development.

Effective revitalization depends on adequate water, sewer, roads, fire and public safety. The infrastructure systems of these communities must also be upgraded as an important component of

revitalization.

3.3 MITIGATION GOALS

The information developed for the risk assessment was used as the primary basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines explaining what each jurisdiction wants to achieve in terms of hazard and loss prevention.



Goal statements are typically long-range, policy-oriented statements representing jurisdiction-wide visions. Objectives are statements that detail how each jurisdiction's goals will be achieved, and typically define strategies or implementation steps to attain identified goals. Other important inputs to the development of jurisdiction-level goals and objectives include performing reviews of existing local plans, policy documents, and regulations for consistency and complementary goals, as well as soliciting input from the public.

The following represents overarching strategic goals associated with the identification and eventual implementation of appropriate and meaningful hazard mitigation efforts in relation to prioritized hazards and threats confronting the Yolo Operational Area. These goals form the basis for specific supporting process objectives and are shown from the highest priority, at the top of the list, to those of lesser importance.

The establishment of hazard mitigation goals represents both individual and collective strategies that have been mutually agreed upon by the Steering Committee, and have not changed with the 2018 HMP update. Eventually, these goals will be adopted by each participating jurisdiction and public agency as the guiding policy behind local hazard mitigation efforts, in conjunction with other associated principles.

Goal 1:	Protection of life during and after the occurrence of disasters from identified hazards;
Goal 2:	Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
Goal 3:	Protection of emergency response capability

Goal 4:	Protection of developed property, homes and businesses, industry, educational opportunities and the cultural fabric by combining hazard loss reduction with the community's environmental, social and economic needs
Goal 5:	Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives
Goal 6:	Preserving or restoring natural mitigation values such as flood plains.
Goal 7:	Protection of natural resources and the environment.

Planning Process Objectives

The following objectives are meant to serve as a metric upon which the Yolo Operational Area Hazard Mitigation Plan can be evaluated. Meeting these objectives assures the Multi Hazard Mitigation Plan as a functional document that identifies short-and long-term strategies, and describes each measure including:

Objective 1:	Identification of individuals, agencies or organizations responsible for project implementation.
Objective 2:	Projecting a realistic and doable time frame for project implementation.
Objective 3:	Explanation of how the project will be financed including the conditions for financing and implementation as information is available.
Objective 4:	Identification of alternative measures, should financing not be available.
Objective 5:	Maintain consistent support for the implementation of existing hazard mitigation planning goals and objectives for the operational area.
Objective 6:	Base mitigation strategies on hazards as identified within the Yolo OA Risk Assessment.
Objective 7:	Provide significant potential for the effective reduction of damage to public and/or private property, or to costs associated with local, state, and federal recovery from future potential impacts.
Objective 8:	Establish and maintain a benchmark for identifying the most practical, cost effective, socially acceptable, and environmentally sound mitigation solution after consideration of available alternatives.
Objective 9:	Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential for loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering.

Objective 10:	Meet applicable permit requirements.
Objective 11:	Develop mitigation standards for development in hazardous areas.
Objective 12:	Contribute to both the short-and long-term solution to the hazard vulnerability risk problem.
Objective 13:	Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation.
Objective 14:	Have manageable maintenance and modification costs.
Objective 15:	When feasible, be designed to accomplish multiple objectives including improvement of life safety, damage reduction, restoration of essential services, protection of critical infrastructure, security of economic development, recovery, and environmental sustainability.
Objective 16:	Whenever feasible, use existing resources, agencies and programs to implement the project.
Objective 17:	Include regional hazard mitigation concerns and strategies

3.4 MITIGATION PROJECTS

The following mitigation projects were identified based on the hazard vulnerability and risk analysis for the unincorporated County:

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
All Hazards Public Awareness and Disaster Preparedness	All / Yolo County Office of Emergency Services (OES)	Existing (2005)	Yolo County OES General Fund	Ongoing	Important element of CRS program
Convene Local/Tribal Disaster Councils	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	2020	Disaster Councils are being joined into one OA Coordinating Group

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	Yolo County and the Cities of Davis, West Sacramento, Winters, and Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Community Warning System	All / Yolo County OES	COMPLETE D (2005)	Yolo County OES General Fund	Completed	These systems are continually updated due to changing technology
Care and Shelter Planning to include People with Disabilities, the Elderly, Access and Functional Needs, and Animals	All / Yolo County Health and Human Services Agency (HHSA)	Existing (2013)	Yolo County OES General Fund	Ongoing	Rapidly changing planning effort due to evolving best practices
Develop Public Health and Mass Care Tiered Response System Countywide	All / Yolo County HHSA	DELETED (2013)	DELETED	Deleted	Major advance in capability within medical and human services communities to meet needs of Yolo County residents
2018 Yolo County Hazard Mitigation Plan Update	All / Yolo County OES	NEW (2016)	PDM, HMGP	2018	Five-year required update

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Structural Retrofit of Madison Fire Station	Yolo County / Madison Community Services District	NEW (2017)	PDM, HMGP	2018	Ongoing
Emergency Generator – District Office	Yolo County / RD108	NEW (2017)	\$70,000 PDM, HMGP	2020	Design Initiated
DROUGHT					
Drought Contingency Plan	All / Yolo County OES	Existing (2013)	PDM, HMGP	2018	Ongoing
Drought Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change
Cacheville Well Replacement	Yolo County / Cacheville Community Services District	NEW (2017)	PDM, HMGP	2018	Serves the town of Yolo, affected by climate change
Groundwater Wells	Yolo County / RD108	NEW (2017)	\$1M USBR, PDM, HMGP	2019	Study initiated
FLOODING/DROUGHT					
Forbes Ranch Regulating Pond	Forbes Ranch Regulating Pond	Forbes Ranch Regulating Pond	Forbes Ranch Regulating Pond	Forbes Ranch Regulating Pond	Forbes Ranch Regulating Pond
North Winters Retention Pond	North Winters Retention Pond	North Winters Retention Pond	North Winters Retention Pond	North Winters Retention Pond	North Winters Retention Pond
EARTHQUAKE					
Non-Structural Mitigation Outreach Program	All / Yolo County Community Services Department	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
FLOODING/LEVEE FAILURE					
Cache Creek Flooding	Woodland / Public Works Division, Yolo County / Yolo County OES	Existing (2005)	DWR Grants	Ongoing	Ongoing
Flood Response Planning Project to Include GIS Mapping	Yolo County / Yolo County OES, West Sacramento / Public Works Department	Completed (2013)	DWR Grants	Completed	Completed
Promote Flood Insurance (Cont'd participation in the NFIP)	Yolo County and the Cities of Davis, West Sacramento, Winters, Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Madison Housing Elevation	Yolo County / Yolo County OES	NEW (2017)	FMA, HMGP	2019	Elevate all houses in Madison (147) out of 100-year floodplain
Madison Stormwater Management	Yolo County / Yolo County OES	NEW (2017)	PDM, HMGP	2019	Conduct a study to determine how water can be stored/ rerouted to prevent Madison flooding
Stabilization of Sacramento River Levee Toe	Yolo County / RD 827	NEW (2017)	PDM, HMGP	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
East Bypass Levee Hardening and Armoring of Pump Plant	Yolo County / RD 827	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Backup Generator	Yolo County / RD 900	NEW (2017)	HMGP	2020	Timeframe dependent upon HMGP grant award
Hardening of Blacker Canal Bank	Yolo County / RD 900	NEW (2017)	HMGP	2021	Timeframe dependent upon HMGP grant award
SCADA Implementation	Yolo County / RD 900	NEW (2017)	HMGP	2020	Timeframe dependent upon HMGP grant award
Hardening of Bridgeway Lakes Drainage Canal	Yolo County / RD 900	NEW (2017)	HMGP	2018	Timeframe dependent upon HMGP grant award
Stabilization of Sacramento River Levee Toe	Yolo County / RD 1600	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Hardening of Sacramento River Levee	Yolo County / RD 1600	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Armoring of East Bypass Levee	Yolo County / RD 1600	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Hardening of Cross Levee	Yolo County / RD 2035	NEW (2017)	PDM, HMGP	\$250,000	Ongoing
Siphon Upgrade	Yolo County / RD2035	NEW (2017)	PDM, HMGP	2018	
Emergency Generator – Pump Stations	Yolo County / RD108	NEW (2017)	\$70,000 PDM, HMGP	2020	Design Initiated
Stabilization of Colusa Basin Drain Levee	Yolo County / RD108	NEW (2017)	\$3M DWR grant PDM, HMGP	2022	Problem identification
Hardening of Bridgeway Lakes Drainage Canal	Yolo County / RD 900	NEW (2017)	HMGP	2018	Timeframe dependent upon HMGP grant award

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Seepage Mitigation of Sacramento River Levee	Yolo County / RD108 – Sacramento River West Side Levee District	NEW (2017)	\$8M DWR grant, local cost share PDM, HMGP	2019	Design and Permitting initiated
Hardening of Sacramento River Levee	Yolo County / RD108- Sacramento River West Side Levee District	NEW (2017)	\$5M DWR grant PDM, HMGP	2022	Problem identification
Hardening of Knights Landing Ridge Cut Levee	Yolo County / RD108 – Knights Landing Ridge Drainage District	NEW (2017)	\$3M DWR grant PDM, HMGP	2022	Problem identification
Hardening of Colusa Basin Drain Levee	Yolo County / RD 108	NEW (2017)	\$1M DWR grant PDM, HMGP	2023	Problem identification
Invasive Species Removal in Canals	Yolo County / RD108	NEW (2017)	\$100,000 PDM, HMGP	Ongoing	Ongoing
Flood Basin Segmentation	Yolo County / RD108 – Knights Landing Ridge Drainage District	NEW (2017)	\$10M DWR grant PDM, HMGP	2022	Study initiated
West Adams Canal Road and Cache Creek Bank Erosion Emergency Repair Project	Yolo County/ YCFCWCD	COMPLETE D (2017)	\$250,000 CDAA/FEMA Funding and YCFCWCD Capital Job Funding	June 2017	
RD 537 Pump Station Upgrades	City of West Sacramento / Yolo County / RD 537	New	\$2.2 million HMGP	2023	
DAM FAILURE					
Indian Valley Dam Upgrades	Yolo County (YCFCWCD)	NEW (2017)	PDM, HMGP		

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Capay Valley Diversion Dam (West Adam and Winters Headworks) Upgrades	Yolo County / YCFCWCD	EXISTING (2018)	YCFCWCD Capital Job Funding	October 2018	Ongoing
SEVERE WEATHER					
Emergency Power	Yolo County and the Cities of Davis, West Sacramento, Winters, Woodland / Yolo County OES	Existing (2005)	PDM, HMGP	Ongoing	Ongoing
Winter Weather Preparedness Campaign	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
WILDFIRE					
Fuel Reduction in Local Responsibility Areas	All / Yolo County OES	Existing (2013)	CalFire Grants, Fire Safe Council Grants, HMGP	Ongoing	Ongoing
State Route 128 Fire Prevention	Winters / Fire Department, Yolo County / OES	NEW (2017)	CalFire Fire Prevention Grant, PDM, HMGP	2018	Working with CalTrans and CalFIRE to reduce vegetative fuels
Wildfire Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change
Indian Valley Dam Power Pole Upgrade	Yolo County / YCFCWCD	NEW (2018)	PDM, HMGP	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
CLIMATE CHANGE					
Farmer Outreach Program to Reduce Fossil Fuel Consumption	Yolo County / Department of Agriculture	Existing (2011)	U. S. Department of Energy; Environmental Protection Agency, Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Create an outreach program to inform Yolo farmers about ways to reduce nitrogen fertilizer application with minimal effects on crop yield; promote fuel efficient farm equipment and operations

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Farmer Outreach Program to Reduce Greenhouse Gas Emissions	Yolo County / Department of Agriculture	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Create an outreach program to promote fuel efficient farm equipment and operations

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Energy Use in Agricultural Pumping	Yolo County / Department of Agriculture, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Waive county permit fees for projects that convert tailwater-return pumps to solar power; create an outreach and incentives program to encourage farmers to improve the efficiency of irrigation pumps.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Livestock Manure Methane Emissions	Yolo County / Department of Agriculture	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Work with livestock operators to identify funding assistance for the implementation of methane biogas control systems and related renewable energy generation systems

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Methyl Bromide Application	Yolo County / Department of Agriculture, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Phase-out methyl bromide in pesticide applications

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Sequester Carbon in Agricultural Landscapes	Yolo County / Department of Agriculture, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Create a program to restore riparian woodlands in locations consistent with the Yolo Natural Heritage Program to offset expected development emissions; create a program to allow developers to pay fees to the Resource Conservation District to help it implement its on-farm conservation practices program; develop a system for tracking the establishment of new orchards in in the County using GIS

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Vehicle Miles Traveled	Yolo County/ Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Achieve Vehicle Miles Traveled performance standards identified in the 2030 Yolo County General Plan; implement Transportatio n Study Impact Guidelines

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Community Choice Aggregation (CCA) Program	Yolo County / County Administrator Office	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Develop a CCA Program that will help prioritize the development of local energy projects

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Energy Consumption in Existing Residential and Non-Residential Units	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Promote incentive and technical assistance programs (Energy Upgrade California Program, Yolo Energy Watch); implement the Property-Assessed-Clean-Energy (PACE) Program; amend the Yolo County Code to improve overall energy efficiency by 15%; increase participation by eligible low-income residents in the Department of Energy Weather Assistance Program and the Low-Income Home Energy Assistance Program

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Energy Consumption in New Residential and Non- Residential Units	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Amend the Yolo County Code to require all new residential construction exceed the California Energy Code 2008 Energy Efficiency Standards by 15% (all new homes over 3,500 square feet of livable space by 30%); amend the Yolo County Code to require all new non-residential construction exceed the California Energy Code 2008 Energy Efficiency Standards by 15% beginning in 2013; create an incentive program for commercial builders to exceed the California Energy Code Energy Efficiency Standards by 30% or more

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Increase On-Site Renewable Energy Generation to Reduce Demand for Grid Energy	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Develop an outreach program to promote the Energy Upgrade California Program for residents; implement the PACE Program; develop an outreach program to promote financial incentives through the California Solar Initiative (CSI) for installing hot water heaters; amend the Yolo County Code to require all new residential and commercial development to install solar hot water systems; amend the Yolo County Code to require all new residential development of four units or more and non-residential development to install solar photovoltaic systems capable of providing 10% or more of the development's total projected electricity consumption

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Promote On-Farm Renewable Energy Facilities	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Develop a farmer-to-farmer workshop program to promote on-farm renewable energy generation; identify funding sources to finance investments in renewable energy for agricultural operations

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Reduce Water Consumption in Existing Buildings through Increased Plumbing Fixture Efficiency	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020-2030	Amend the Yolo County Code to require all residences built before 1994 to be retrofitted with water efficient fixtures prior to resale; develop a program to promote voluntary water efficiency retrofits for existing buildings

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Promote Weather-Based Irrigation Systems and Water Efficient Turf Management	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2012-2030	Require all automatic irrigation system controllers be weather based; amend the Yolo County Code to limit turf to no more than 25% of the front yard in new residential development

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Expand Landfill Methane Capture Systems	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2020	Enhance and expand existing landfill gas collection and destruction systems (90% control efficiency) at the Yolo County Central Landfill

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Prepare for the Effects of Climate Change on Agriculture	Yolo County / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2015	Develop outreach programs to inform and assist farmers in changing crop patterns and/or practices to adapt to the effects of climate change; develop a program to monitor and summarize relevant studies pertinent to climate change effects on agriculture and potential adaptation strategies

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Prepare for Climate Change Effects on Water Resources	Yolo County / County Administrator Office, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2015	Work with the Water Resources Association of Yolo County to update the Integrated Regional Water Resource Management Plan to monitor and respond to climate change effects on water resources

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Respond to the Potential Threat of Sea-Level Rise	Yolo County / Office of Emergency Services / Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2015	Coordinate with FEMA and DWR to ensure that the flood mapping for potentially affected areas is regularly updated to reflect changes in Base Flood Elevations accounting for sea level rise; expand outreach under the Community Rating System to inform residents of potentially affected areas regarding the need to plan for sea-level rise; identify areas that will be affected by sea-level rise and institute protection and adaption measures; revise capital improvement plants for critical infrastructure (including levees and roads) in potentially affected areas to address the effects of future sea level rise

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Protect the Public from Increased Health Risks	Yolo County / OES, HHSA	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2014	Update the Yolo County Hazard Mitigation Plan to address public health risks associated with climate change

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Program to Develop Governance Strategies to Ensure that Yolo County Remains Resilient to Climate Change	Yolo County/ OES, Community Services Department	Existing (2011)	U. S. Department of Energy, Environmental Protection Agency, U.S. Department of Housing and Urban Development, California Energy Commission, California Infrastructure and Economic Development Bank, Sacramento Area Council of Governments, Pacific Gas & Electric, Yolo County Water Districts, Water Resources Association of Yolo County, Yolo-Solano Air Quality Management District	2013-2014	Provide updates to the Board of Supervisors on climate change adaptation science, policy, and legislation; update the Yolo County Hazard Mitigation Plan with an emphasis on climate change related effects and risks to Yolo County; consult and coordinate with applicable agencies regarding development of climate adaptation priorities; collaborate with UC Davis on regional climate data monitoring and risk modeling

SECTION 4.0: PLAN REVIEW, EVALUATION AND IMPLEMENTATION

The strategies presented are deemed appropriate and effective by recommendation of the County of Yolo.

4.1 PLAN ADOPTION

Upon submission to the California Office of Emergency Services (CalOES) for review, and subsequent approval by the Federal Emergency Management Agency (FEMA), the Yolo County Hazard Mitigation Plan will be presented to local government for formal adoption. As appropriate, the adopted plan and accompanying Yolo County Unincorporated Area Community Profile will then be incorporated into local general plans for integration into organizational policy.

4.2 PLAN MONITORING

The process of hazard mitigation does not end with the completion, approval, and adoption of the Yolo County Hazard Mitigation Plan and the Yolo County Unincorporated Area Community Profile. Within the lifespan of these documents (five years), local government along with community-based organizations will ensure that the mitigation goals and strategies identified are monitored, that plan administration will continue under a collaborative and cooperative umbrella, and that the document itself will be properly maintained.

The Yolo County Office of Emergency Services, as lead coordination agency for hazard mitigation planning within the Yolo OA, and will assist and support the ongoing collaborative efforts of Yolo County, through the established Hazard Mitigation Steering Committee. Specific plan maintenance activities by the Yolo County Office of Emergency Services and Yolo County may include:

- Distribution of the HMP and Community Profile to all interested parties, including both written and digital formats
- Monitoring of the Yolo County mitigation project activities and dissemination of status reports
- Generation of reports relative to plan status, project management, and revision updates to executive leadership
- Preparations for plan eventual revision and updating

4.3 PLAN EVALUATION

Upon approval and adoption by the County of Yolo, the prioritized mitigation strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

The mitigation strategies represented and adopted within this plan are recommendations only, and must be approved and funded in order to be implemented as official mitigation solutions. Ultimately, it is the responsibility of jurisdictional and agency officials within the Yolo Operational Area to undertake project implementation based upon identified mitigation strategies, funding availability, and local need when it arises. The Yolo County Office of Emergency Services will meet with the Hazard Mitigation Steering Committee to evaluate the plan after each update meeting.

4.4 PLAN UPDATE

During the five year update cycle, the Yolo County Office of Emergency Services will hold tri-annual update meetings with the Hazard Mitigation Steering Committee and local stakeholders to discuss revisions to the plan. The Yolo County Office of Emergency Services will continue to hold public meetings after the first and third update meetings annually, and will continue to invite public participation in the update process via updated public surveys.

DRAFT

APPENDIX A: ADOPTION LETTER

DRAFT

APPENDIX E: COMMUNITY PROFILE – CITY OF DAVIS

DRAFT



This document is a support annex to the
Yolo County Multijurisdictional Hazard
Mitigation Plan

City of Davis Community Profile



Version 1.0

December 2018



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ACKNOWLEDGEMENTS

The City of Davis would like to thank those Yolo County Operational Area collaborators and partners who participated in the planning and development of this document.

The official Yolo County Operational Area Hazard Mitigation Steering Committee provided the oversight and dedication to this project that was required and without their commitment; this project would not be possible.

As with any working plan, this document represents planning strategies and guidance as understood as of the date of this plan's release. This plan identifies natural hazards and risks and identifies the hazard mitigation strategy to reduce vulnerability and make the City of Davis more disaster resistant and sustainable.

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LETTER OF PROMULGATION

December 2018

To: Officials and Employees of the City of Davis

The preservation of life and property is an inherent responsibility of city government. As disasters occur in devastating form at any time, the City of Davis must provide safeguards which will save lives and minimize property damage through mitigation planning and training. Sound mitigation planning carried out by knowledgeable and well-trained personnel can and will minimize losses.

The Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan (HMP) identifies the hazard risks and vulnerabilities for the Yolo County Operational Area and identifies mitigation projects and actions to help reduce those risks. It provides for the integration and coordination of planning efforts of multiple jurisdictions within Yolo County as well as the Yocha Dehe Wintun Nation and the Housing Authority of Yolo County.

This City of Davis Community Profile is an extension of the HMP. The content is based upon guidance approved and provided by the Federal Emergency Management Agency and the California Governor's Office of Emergency Services. The intent is to provide direction for the City of Davis on how to mitigate against the threat of disaster through effective mitigation strategies and initiatives.

Once adopted, the HMP and Community Profile will be reviewed and tested periodically and revised as necessary to meet changing conditions and requirements.

The City of Davis City Council gives its full support to this Community Profile and urges all employees and individuals to mitigate against the threat of disaster before they occur.

Mayor, City Council

City of Davis

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SECTION 1.0: INTRODUCTION

The City of Davis Community Profile has been prepared in conjunction with the Yolo County Operational Area Hazard Multi-Jurisdictional Mitigation Plan (HMP), establishing an inter-jurisdictional process for the development and implementation of effective hazard mitigation strategies in association with identified hazards that pose real or potential threats to the City of Davis.

1.1 HISTORY

Founded in 1868, the City of Davis served as an agricultural hub for early settlers. Known for its fertile soil and temperate climate, Davis became a popular destination for farmers. The completion of the transcontinental railroad in 1869 spurred further development eventually leading to the City's official incorporation in 1917.

Celebrating its centennial in 2017, Davis has grown significantly from its quaint roots as an agricultural community. Often deemed the most bicycle friendly town in the nation, Davis became the first city in the U.S. to create bicycle lanes as well as to develop bicycle lane safety regulations that were ultimately adopted by Caltrans and replicated nationwide. Davis is also a pioneer in environmental sustainability, as one of the first cities in California to provide curbside recycling to residents, decades before the State adopted recycling requirements.

Closely tied to the community's history is the University of California at Davis. Established in 1908, UC Davis served as an agricultural school for the University of California system. Over the next 50 years, the campus expanded and in 1962, UC Davis became the seventh general campus of the University of California system. Today, UC Davis is widely recognized as a premier research institution, earning the recognition of first in the world for veterinary medicine, first in the nation for agriculture, and sixth in the nation among public universities.

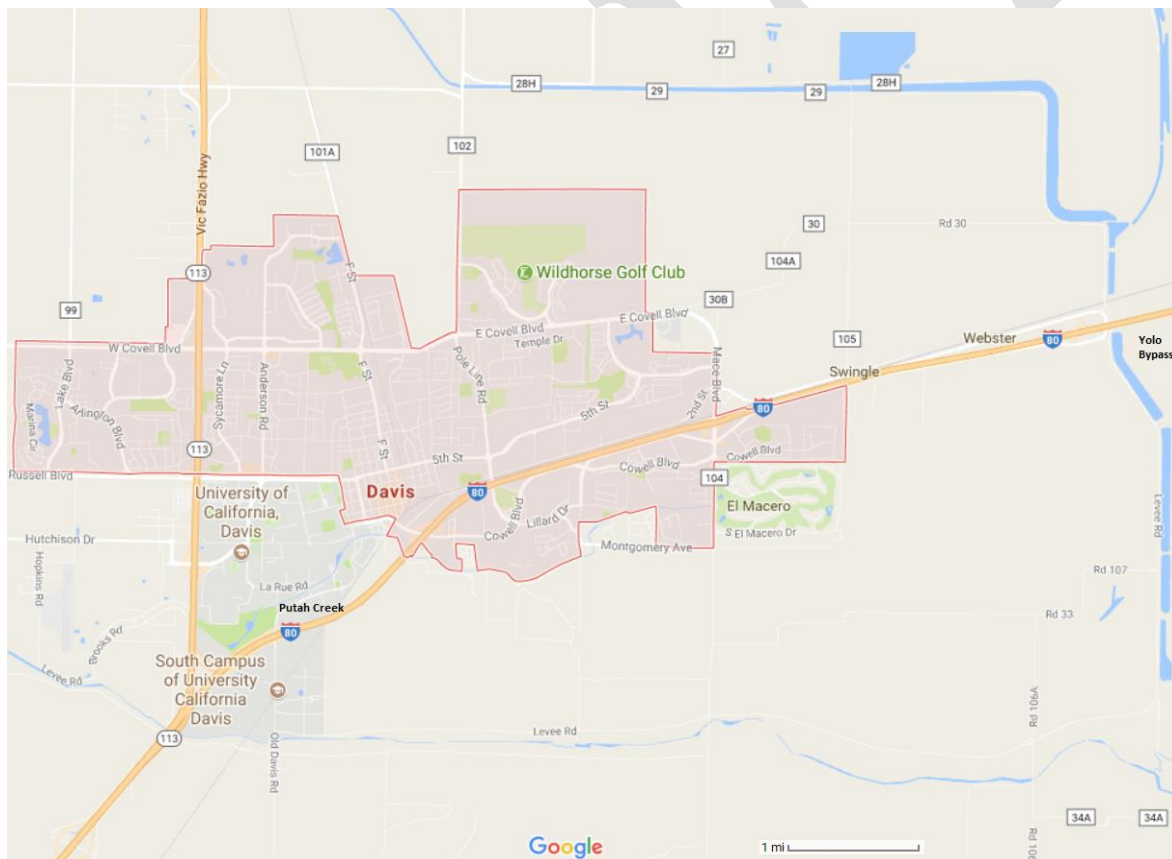
1.2 OVERVIEW

The City of Davis is a medium sized incorporated municipality located in the southern portion of Yolo County, immediately bordering Solano County. Davis is located 11 miles west of Sacramento, 385 miles north of Los Angeles, and 72 miles northeast of San Francisco. Davis is the most populated city within the county and is a significant service and retail area within Yolo County, and contributes substantially to the economic, social, cultural, and educational dimension of the county.

There is unparalleled scenic beauty and many recreational opportunities within a few hours' drive from Davis. Sierra Nevada Mountain range lies to the east - Coastal Range to the west. The Sacramento and American Rivers lie to the east along with historic gold country and Lake Tahoe, while to the west are the San Francisco Bay area, the great coastal redwood forest, and the beaches and rugged shores of the Pacific Ocean. The Sacramento-San Joaquin Delta region lies to the south.

Davis sits in the Pacific Flyway, a major migration route for waterfowl and other North American birds. Several wildlife preserves, offering a natural environment, dot the landscape. The Yolo Bypass Wildlife Area - one of the most successful public-private partnerships for wildlife preservation - was recognized by President Clinton in 1999. It provides habitat for thousands of resident and migratory

Davis also sits in the eastern portion of the Putah Creek Plain, a major feature of the southwestern Sacramento River Valley. The land slopes at generally less than one percent. Elevations range from 60 feet in western parts of the city to 25 feet in some eastern parts, with an official elevation level of 51 feet. The city limits cover 9.9 square miles. See Figure 1 for a map of the City of Davis.



Source: Google Maps

1.3 DEMOGRAPHICS

1.3.1 POPULATION

According to the California Department of Finance, Davis had approximately 68,314 residents in 2017. This represents a 1.49% increase from 2016, when the estimated population was 67,731 residents. When comparing Davis' percent increase to other cities in California, Davis ranked 82 out of 482. If Davis continues on its current growth trajectory, the City could reach a population of 79,240 by 2036, which accounts for roughly 15% of Yolo County's projected population growth.

1.3.2 AGE DISTRIBUTION

Figure 2 below shows the age distribution of both the City and the County in 2000 and 2015. While the City's trends largely follow the County's trends, there are two notable discrepancies.

First, Davis' proportion of young adults aged 18 to 24 far exceeds the County, which is largely attributed to UC Davis' student population.

Second, the City also has a slightly larger proportion of residents over the age of 65, compared to the County. Roughly 12.6% of Davis residents were over the age of 65, which was 0.6% higher than 12% countywide. Since 2000, Davis' share of residents over 65 increased 5.9% compared to the countywide increase of 2.6%, indicating the City experienced more than two times the growth in this age group than that experienced by the County.

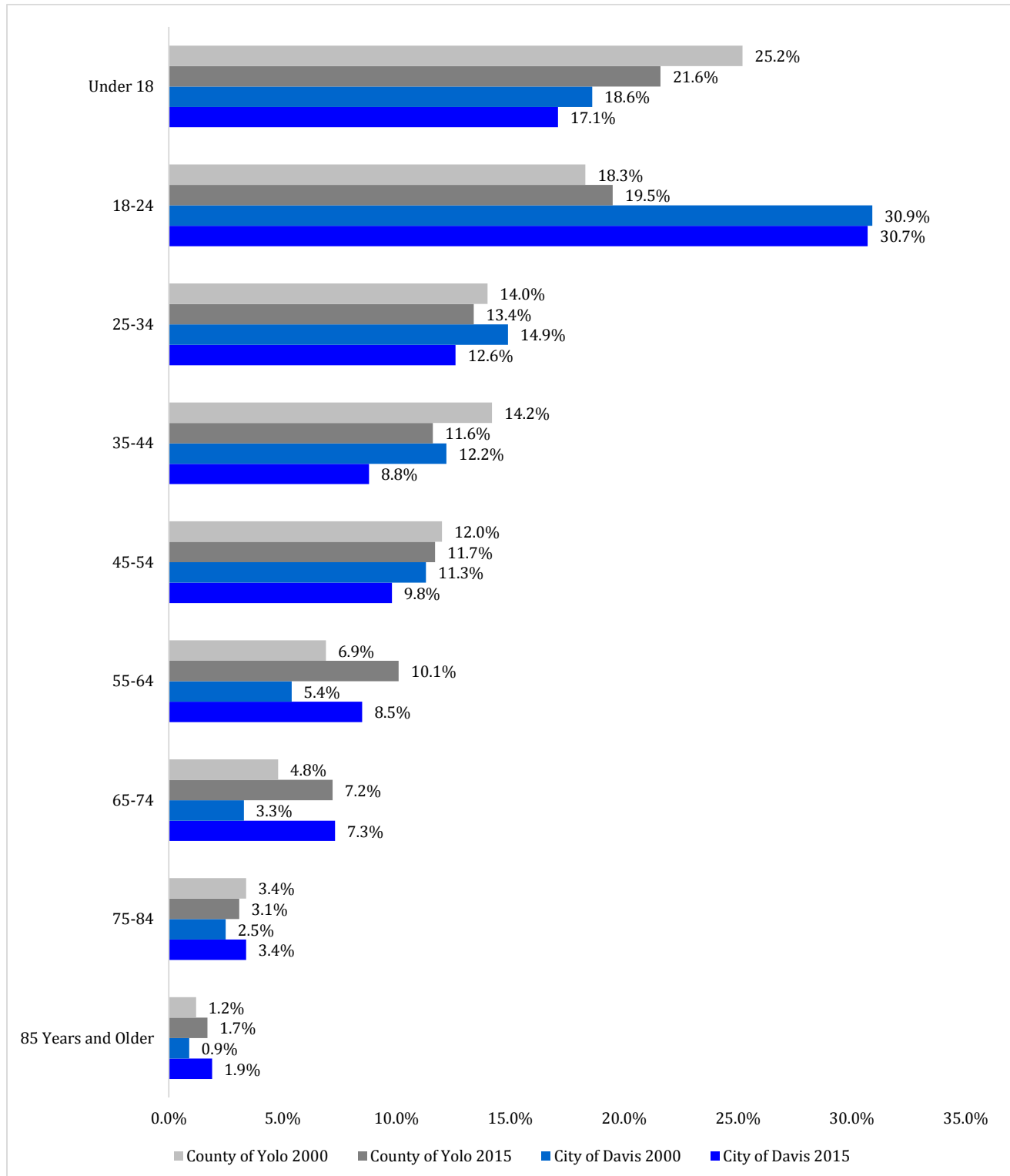


Figure 2: Age Distribution of City of Davis and County of Yolo Residents in 2000 and 2015
Sources: U.S. Census Bureau, Census 2000 Summary File 1, 2016;
U.S. Census Bureau, 2015 American Community Survey, 2016

1.3.3 RACIAL AND ETHNIC COMPOSITION

In 2015, non-Hispanic Whites and Asians constituted the two largest racial and ethnic groups residing in Davis, comprising 56.5% and 21.7% of the population. Hispanics were the third largest subgroup, comprising 13.4% of the population. Except for persons belonging to Some Other Race or Two or More Races, all minority subgroups were generally underrepresented in the City, compared to the County.

1.3.4 INCOME

Historically, Davis residents report earning higher incomes than County residents. However, in 2015, Davis' median household income of \$58,176 was slightly lower than the countywide median of \$58,966. Since 2010, median household incomes in Davis decreased an average of 10% or \$6,390 after adjusting for inflation, compared to a decrease of 4% or \$2,334 countywide.

Despite having slightly below average median household income, Davis family households still have considerably higher incomes than the County. In 2015, Davis' median family household income was \$110,271, compared to \$74,561 countywide.

Similar to other demographic categories, this anomaly suggests that the UC Davis student population is skewing the City's income statistics. Evidence of this is particularly apparent when comparing the City's poverty rate to the City's non-student poverty rate. Using methodology published by the U.S. Census Bureau, Davis calculates its non-student poverty rate to be 10.32%, which is 18.48% lower than the City's overall poverty rate of 28.8%.

1.3.5 EDUCATIONAL ATTAINMENT

In 2015, the Davis population boasted high educational attainment levels. Specifically, 93.7% of Davis residents age 25 years and older received a high school diploma or more, compared to 69.6% of Yolo County residents. Moreover, 33.4% of Davis residents earned a bachelor's degree, 20.7% earned a master's degree, and 16.7% earned a doctorate degree, compared to 22%, 10.3%, and 6.5% of County residents.

1.4 ECONOMY

Despite being impacted by the recession of 2008, current economic indicators suggest the City is returning to pre-recession levels.

1.4.1 EMPLOYMENT

According to the California Employment Development Department, Davis had 13,847 jobs in 2015, which accounted for 14.2% of countywide employment. Between 2010 and 2015, the City added 2,031 jobs, for an increase of 17.2%. Five industry sectors accounted for the majority of the City's employment, including Accommodation and Food Services (18.3%), Health Care and Social Assistance (16.6%), Government (13%), and Professional and Business Services (12.2%).

1.4.2 ECONOMIC IMPACT OF UC DAVIS

While difficult to quantify, the economic impacts of UC Davis in the region are significant. According to an Economic Impact Analysis, the University estimates that including student and visitor

expenditures and employee compensation, UC Davis generated \$6.8 billion of economic output and 65,000 jobs within the greater Sacramento region.

1.5 HOUSING

The following section summarizes current housing market conditions and affordability in the City of Davis.

1.5.1 HOUSING STOCK

Data from the U.S. Census Bureau indicate that more than half of the City's housing stock (51.8%) was built since 1980, compared to 47.9% countywide, indicating the City has a larger proportion of newer housing stock compared to the County. As shown in the table below, the City experienced a housing construction boom between 1960 and 2000. Since then, however, Davis has experienced slower growth, with only 10.9% of the City's housing stock built since the year 2000, compared to 21.3% countywide. Most of the City's housing built since 2000 (8.9%) was built prior to 2010, with only 3% or 769 units, built between 2010 and 2016.

Year Built	City of Davis		County of Yolo	
	Number	Percent	Number	Percent
Built 1939 or earlier	442	1.7%	3,438	4.5%
Built 1940 to 1949	548	2.1%	3,262	4.2%
Built 1950 to 1959	1,795	7.0%	8,903	11.6%
Built 1960 to 1969	3,165	12.4%	8,606	11.2%
Built 1970 to 1979	6,271	24.5%	15,897	20.7%
Built 1980 to 1989	4,646	18.1%	11,173	14.5%
Built 1990 to 1999	5,721	22.3%	9,288	12.1%
Built 2000 to 2009	2,269	8.9%	13,893	18.1%
Built 2010 or later	769*	3.0%	2,506	3.3%
Total, All Units	25,626	100%	76,966	100%

Table 1: Housing Units by Year Built

Sources: U.S. Census Bureau, 2015 American Community Survey, 2016;

*City of Davis, Building Permit Records, 2016

1.5.2 VACANCY RATES

Davis' housing unit vacancy rate has remained lower than the countywide average since the year 2000. Data from the U.S. Census Bureau indicates the City vacancy rate was 3.7% in 2015, which is 1.3% lower than 2010, and 1.7% lower than the countywide vacancy rate of 4.2%. Although 2015 vacancy status data is unavailable for Davis, data shows rental units accounted for the majority of the City's vacancies in 2000 and 2010.

Results of the annual UC Davis Apartment Vacancy and Rental Rate Survey showed 15 vacant units in 2016, representing a 0.2% apartment vacancy rate. The data indicated little to no vacancy across all unit size categories. Units rented under multiple lease agreements, otherwise known as "bed

leases”, accounted for 11% of reported units, which represents an increase of 2% over 2015, indicating that this lease type is becoming more common.

1.5.3 HOUSING COSTS

OWNERSHIP COSTS

According to information from ListSource, a private data vendor, the median purchase price for a single-family home in Davis from November 2015 to November 2016 was \$566,000. In comparison, the Yolo County Association of Realtors reported a countywide median sale price of \$407,000 for the month of September 2016. Although data provided by ListSource and the Yolo County Association of Realtors cover different time periods, it demonstrates that housing purchase prices in Davis are generally higher than the rest of the county.

According to the 2013-2021 Housing Element, annual household incomes generally must exceed \$100,000 in order to afford homeownership, which poses a significant barrier. Households are considered to have an excessive housing cost burden when monthly costs exceed 30% of monthly household income, while households are considered to have a severe housing cost burden when monthly housing costs exceed 50% of monthly household income. Data from the 2009-2013 Comprehensive Housing Affordability Strategy shows that 14.2% of homeowners experienced excessive housing cost burdens, while another 8% experienced severe housing cost burdens.

RENTAL COSTS

The UC Davis Apartment and Rental Survey reported an average apartment rental rate of \$1,489 per month in 2015, which was a 5.3% increase over 2014. Average monthly rents for individual unit types were as follows: \$916 for a studio unit; \$1,119 for a one-bedroom; \$1,462 for a two-bedroom unit; \$1,993 for a three-bedroom unit; and \$2,587 for a four-bedroom unit.

According to the 2013-2021 Housing Element, annual household incomes required to afford rental apartments in the City generally ranged from \$34,840 to \$114,800 after accounting for utility costs; however, large and generally more expensive units were limited. Annual income required for one and two bedroom units, which comprise the majority of the City’s rental housing stock, ranged from \$39,920 to \$52,280.

Given the high cost of homeownership, renting is a more affordable option to many households in the City, however, 20.3% of renter households experience excessive housing cost burdens, while 40.7% experience severe housing cost burdens, indicating that renter households are more cost burdened than owner occupied households. More than 76% of extremely low-income, 89.6% of very low-income, and 76.9% of low-income households were burdened by housing costs.

1.5.4 HOUSING AFFORDABILITY

Historically, Davis has adopted an active approach in the assessment of housing need and the provision of housing. The City’s efforts ultimately culminated in the creation and adoption of an inclusionary housing policy in 1987. The ordinance requires most rental-housing developers to either dedicate at least 15% of a project’s total units to low and 10% to very low-income households in perpetuity or pay an in-lieu fee. Due to revisions that limit the type of projects eligible to pay an

in-lieu fee, the City of Davis Housing Trust Fund, which collects affordable housing in-lieu fees and shared appreciation payments, has not experienced much revenue growth.

1.6 LAND USE

The use of land affects all aspects of the City including housing, business, jobs, traffic, noise, air quality, and community character. This section provides basic facts on existing and planned land uses.

1.6.1 EXISTING LAND USES

Table 2 features gross acres of existing land uses within the City.

Existing Land Use	Gross Acres	Percentages
Residential	3,004	47.3%
Residential Single Family 1-4 Units	2,411	37.9%
Residential Multi-Family 5+ Units	593	9.3%
Commercial	419	6.6%
Public/Semi-Public	389	6.1%
Schools	206	3.2%
Cemetery District	26	0.4%
Church	44	0.7%
City-Owned	48	0.8%
Government	65	1.0%
Industrial	103	1.6%
Parks	252	4.0%
Open Space	505	7.9%
Public	262	4.1%
Private	243	3.8%
Natural Habitat Area	61	1.0%
Agricultural	0	0.0%
Vacant	212	3.3%
Total Land Use	4,945	77.8%
Rights of Way (freeways, streets, railroads)	1,411	22.2%
Grand Total	6,356	100%

Table 2: Gross Acres of Existing Land Uses with the City of Davis
Source: City of Davis, 2017

1.6.2 VACANT LAND

Figure 3 identifies the locations of vacant land sites of at least one acre within the City of Davis. The existing vacant land consists of more than 200 acres, but continues to decrease as the land develops. Most of the existing vacant land is located in the eastern half of the City, both north and south of Interstate 80.

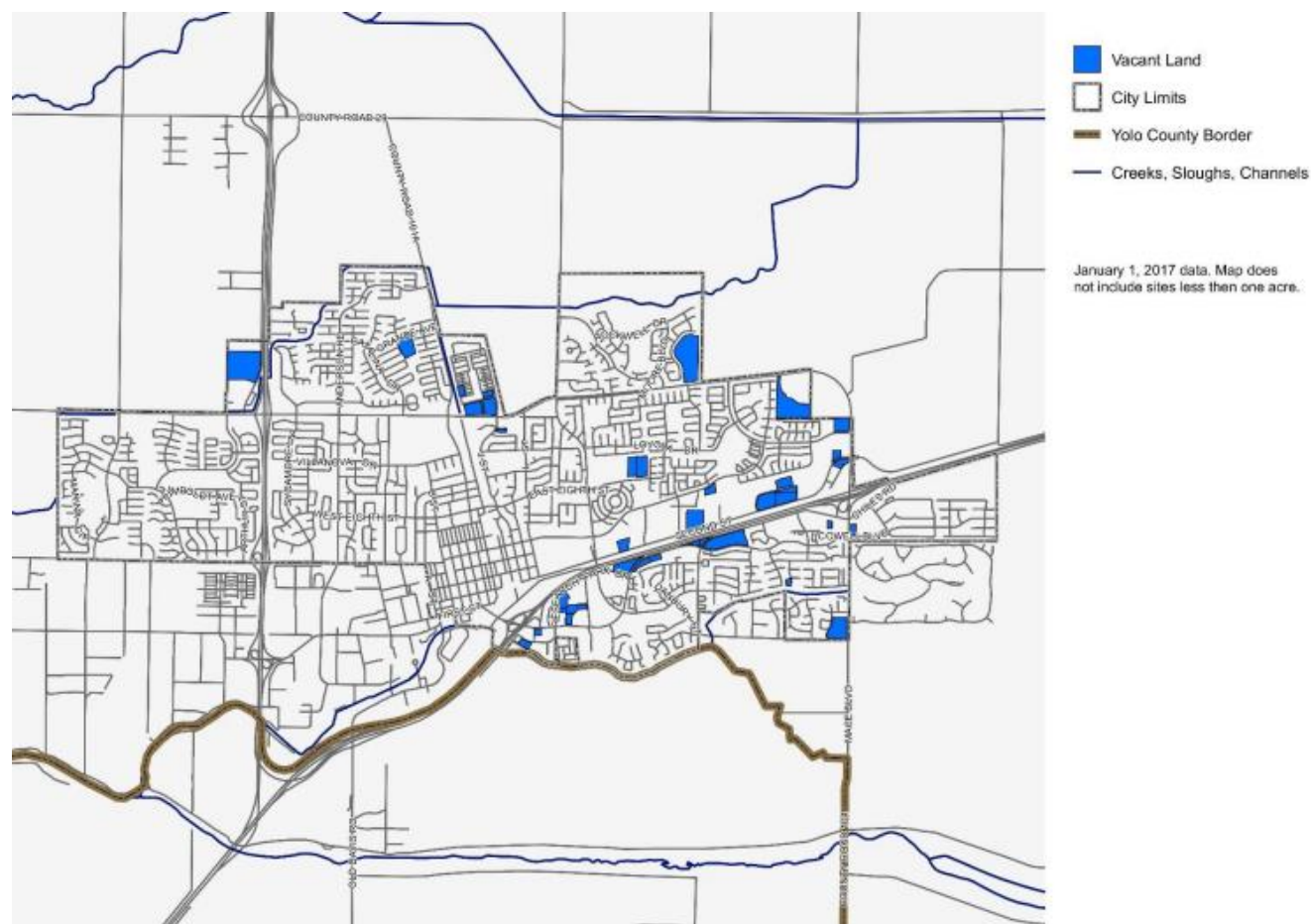


Figure 3: Map of Vacant Land within the City of Davis
Source: City of Davis, 2017

1.6.3 POTENTIAL HOUSING SITES

In 2008, a Housing Steering Committee identified potential sites for infill development with a focus on residential use. The sites were designated “Green Light”, referring to sites recommended beyond those currently planned / zoned for housing, and “Yellow Light”, referring to other sites that could be considered for housing if needed. The Council subsequently adopted Resolution No. 11-077 establishing a process for considering development applications for the potential sites. Figure 4 shows the potential housing sites. It is important to note that the map of sites is not all-inclusive or static because new sites may become candidates for infill development as uses, markets, and other conditions change.

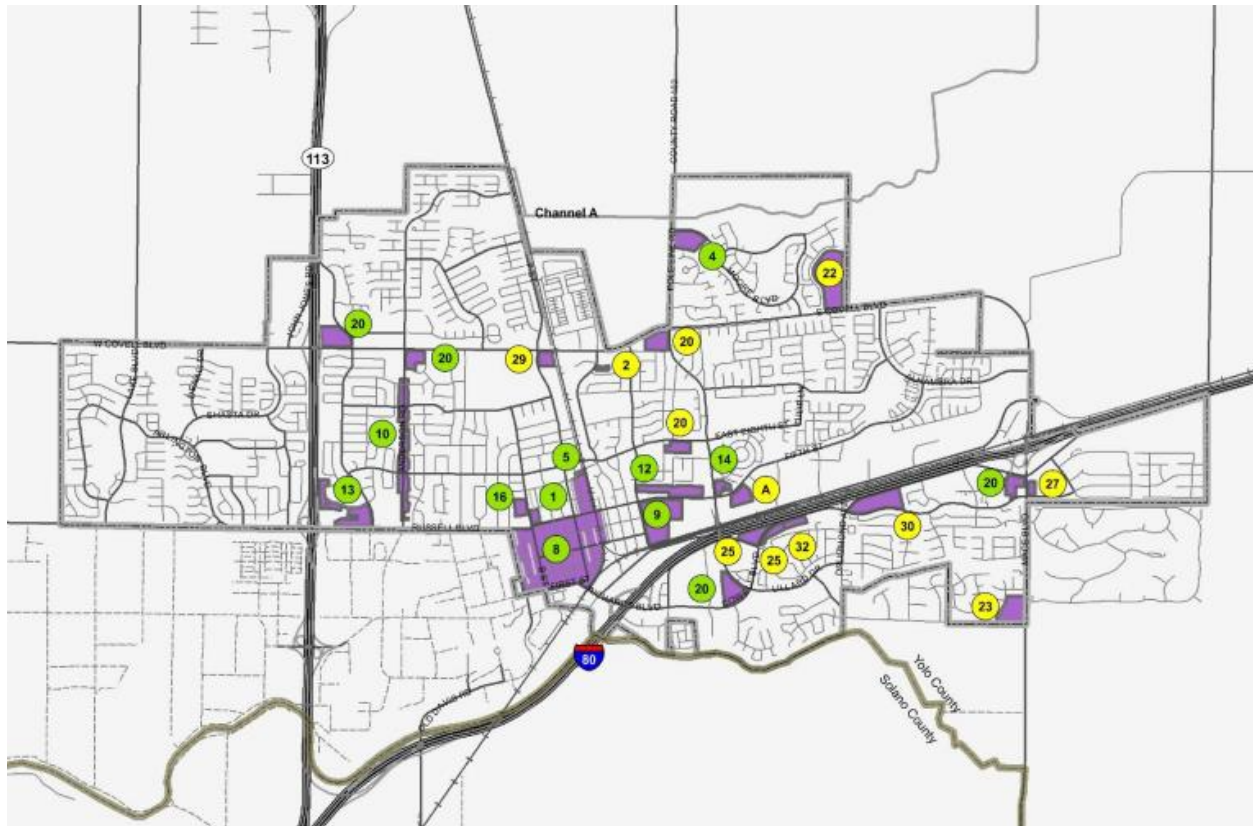


Figure 4: Potential Housing Sites
Source: City of Davis, 2017

1.6.4 POTENTIAL COMMERCIAL SITES

The City intends to identify potential commercial sites in similar depth to the housing sites recommendations described above, either as part of the next General Plan Update or before.

Figure 5 shows potential commercial sites based on studies since 2010. The map includes vacant commercial sites, internal business park opportunity sites, and potential external business park locations. It should be recognized that the map does not show the downtown area, which should also be studied for potential commercial development.

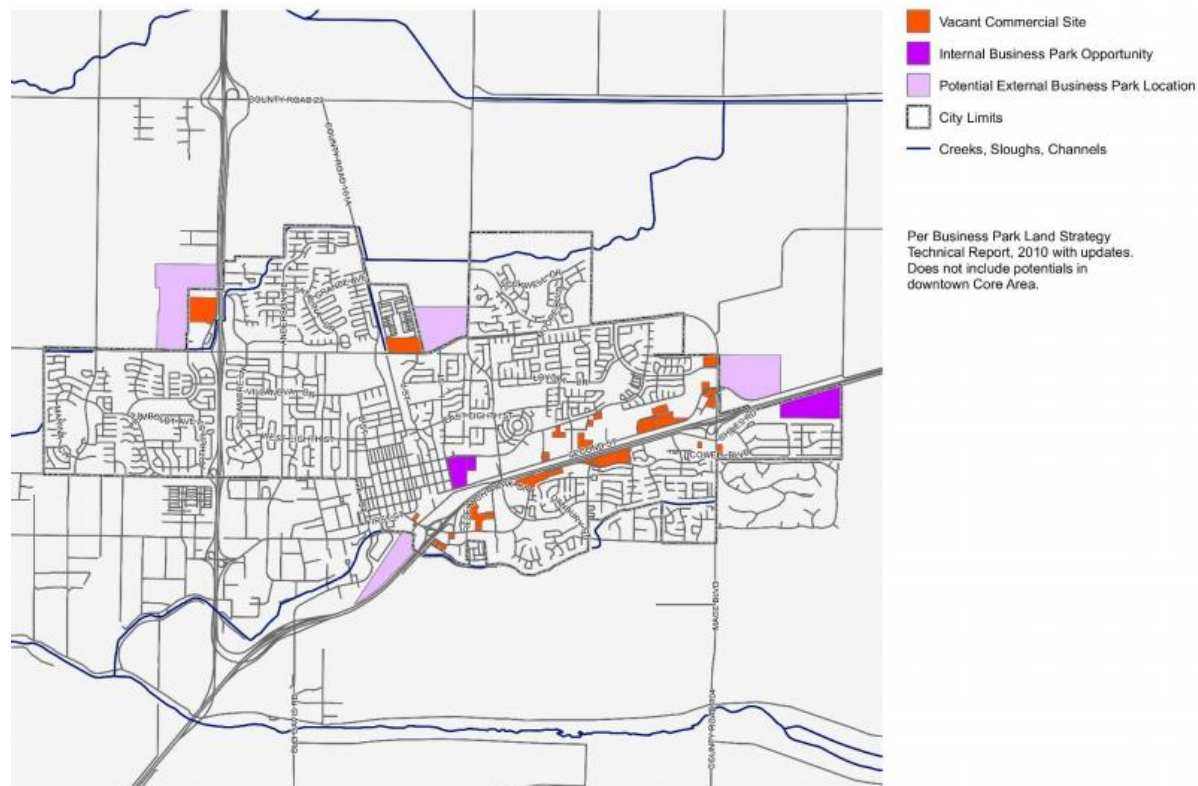


Figure 5: Potential Commercial Sites
Source: City of Davis, 2017

1.7 INFRASTRUCTURE

Providing the backbone for everyday functioning, infrastructure is a priority for Davis. As such, the City is committed to not only maintaining existing infrastructure, but also creating new infrastructure. Given its history as a quaint agricultural community, the City is cognizant however of finding a balance between growth and environmental considerations.

1.7.1 COMMUNICATIONS

AT&T provides the City with telephone and DSL service. Comcast provides cable television services. Davis Media Access, KCRA, and Fox 40 provide broadcast media. The Davis Enterprise and Sacramento Bee provide print media.

1.7.2 TRANSPORTATION

Interstate 80 and State Highway 113 run through Davis with the junction of these two major roadways sitting just outside town at UC Davis on the Solano/Yolo border. Interstate 5 is 11 miles to the north and 13 miles to the east. The Interstate 505 junction is 14 miles west in Solano County.

Three transit systems serve the City of Davis. Unitrans, which is owned by the University, provides bus service within the city. Yolobus connects to other cities in Yolo County. Davis Community Transit provides door-to-door demand response service to the general public, seniors and the disabled.

Davis has a strong history of bicycle use and planning. An estimated 53,000 bicycles are in use in Davis and on the UCD campus. An estimated 25% of personal trips in Davis are made by bicycle. The

City maintains over 50 miles of bicycle lanes and 55 miles of bike paths on city streets and through community greenbelts.

Davis sits at the junction of the north/south, east/west lines for both the Southern Pacific Railroad and Amtrak. Capital corridor trains stop at Davis daily for service between Sacramento and the San Francisco Bay area. Amtrak and the Greyhound bus company stop at the historic Southern Pacific Depot, adjacent to the downtown. The city recently renovated the circa 1910 depot building and expanded parking at this facility.

Situated 19 miles to the northeast is the Sacramento International Airport. Served by half a dozen major national and international carriers as well as several commuter airlines, it has about 135 arriving and departing flights daily with about 14,000 passengers. By the year 2005, the airport is forecasted to serve 23,000 passengers daily. Yolobus and several private airport shuttles provide service between Davis and the airport. The Yolo County Airport, five miles northwest of Davis, has a 6,000 foot runway that can accommodate medium-sized corporate jets or private planes. The UC Davis Airport, open to the public, offers general utility services for light aircraft.

There are no navigable waterways in the City of Davis jurisdiction. Putah Creek runs through the southern area of the City

1.7.3 UTILITIES

There are three significant underground transmission pipelines in the City of Davis area:

- The City of Davis main gas transmission pipeline runs west from the causeway down the railroad ROW, along 2nd Street to the PG&E terminal; then a branch heads north under L Street to Woodland. There is a parallel branch running north, just west of L Street, (from 6th to Covell), terminating at the ConAgra site—this branch is decommissioned.
- The east/west line continues down the ROW branching into three parallel lines along Olive Lane, between L Street and the creek (circumnavigating a rail undercrossing to service a commercial/light industry section of town), it continues west in a single line in the ROW.
- The UC-Davis gas transmission pipeline exposure picks up the main line west of the creek, near Arboretum Drive, continuing west along the ROW (passing Hyatt Place & the Conference Center). Then, a branch line jogs under the parking lot & the Mondavi Institute for Wine & Food Services, on Old Davis Road. The branch turns north on California Ave., then west on LaRue Rd. It then "T-s" into terminals on campus, at Dairy Rd. and Garrod Dr.
- Kinder-Morgan has a Hazardous Materials Liquid Pipeline parallel to Interstate 80, turning south at County Rd. 32 on the Yolo Bypass. This line does not run in the corporate city limits of Davis.

Natural gas and electrical service is provided by [Pacific Gas & Electric](#)

The City's water supply, maintained by the Public Works Department, is a conjunctive use system consisting of treated surface water from the Sacramento River (delivered by the Woodland Davis Clean Water Agency) and groundwater drawn from aquifers ranging from 180 to 1,600 feet

underground. The system contains eleven water wells, one elevated storage tank with a 200,000-gallon capacity, two ground level storage tanks with a total of 8 million gallon capacity (4 million gallons each) and over 180 miles of water distribution pipes. The conjunctive water system can supply 23.4 million gallons per day (mgd), 10.2 mgd from surface water and 13.2 mgd from groundwater. The normal water pressure is 40-50 PSI. The system is operated to maximize the use of treated surface water with groundwater augmenting during peak demands as required. Treated surface water is delivered via a pipeline from the regional water plant in Woodland to the Davis city limit. The pipeline runs down County Road 103 and enters Davis city limits on Pole Line Road. The quantity of water available has been estimated as adequate to meet the City's projected demand through 2035 (based on 2015 Urban Water Management Plan). Generally, Davis groundwater is very hard and high in dissolved solids. Selenium and nitrates are two primary substances found in Davis tap water. Selenium is a natural element in the soil which may dissolve into groundwater and nitrates are chemicals that may occur from agricultural irrigation and cultivation of the soil due to fertilizers or leaching of water from septic systems. Both selenium and nitrate levels at all city wells are below the maximum standards set by federal and/or state agencies. Long term development of water wells over 1,500 feet deep are planned to improve the aesthetic characteristics of Davis water.

Pacific Gas & Electric (PG&E) provides electric power to all areas of Yolo County. Recently, however, the City in partnership with the City of Woodland and County of Yolo formed a local community choice energy program called the Valley Clean Energy Alliance (VCEA). A joint powers agency, VCEA's mission is to deliver cost-competitive clean electricity, product choice, price stability, energy efficiency, and greenhouse gas emission reductions to its customers. In October 2018, VCEA submitted an implementation to the State's Public Utilities Commission and approved a contract with the Sacramento Municipal Utility District to provide energy services.

Centralized wastewater and sewage treatment is managed by all four municipalities, UC Davis, and several special districts that cover various unincorporated communities. Solid waste collection and disposal is provided through established contracts with commercial providers in most unincorporated areas of the county. Yolo County maintains a sanitary landfill site, located between Woodland and Davis, where solid waste is processed and buried. In addition, the County landfill also receives and processes various recyclables for all areas of the county. Davis is not served by Waste Management and has a contract with Davis Waste Removal.

1.7.4 HEALTH CARE

There are two hospital facilities in Yolo County. Sutter Davis Hospital is a technologically advanced acute care hospital with a strong offering of outpatient services and community outreach programs, including STEMI, stroke, and trauma. The 48-bed hospital and its programs provide care and support to the residents of Davis, Dixon, Winters, Woodland, West Sacramento, Vacaville and rural communities throughout Yolo and Eastern Solano Counties. Woodland Memorial Hospital is the largest in the County and provides a full range of surgical and acute care medical services for both inpatient and outpatient visits. The hospital is a 120 bed, acute care, non-profit facility with an outstanding mix of state-of-the-art equipment and community health and wellness programs. Additionally, the hospital is recognized as the most comprehensive provider of women's and

children's medical services in the county, equipped to handle high-risk pregnancies and high-risk infants, as well as the needs of children. This facility also houses a behavioral health unit.

1.7.5 EDUCATION

PUBLIC SCHOOLS

The Davis Joint Unified School District (DJUSD) provides primary and secondary (K-12) public education in the City. Comprised of nine elementary schools, four junior high schools, and two high schools, DJUSD experienced a decline in local enrollment during seven of the last 11 years. The causes of the declining enrollment are due to myriad factors including a dropping birthrate, a decreasing proportion of young families due to rising house prices, and a growing proportion of seniors. As such, DJUSD is accepting increasing numbers of students who transfer into the district from other communities including Woodland and West Sacramento. Without these transfer students, DJUSD would face reduced enrollment and loss of per-student revenue from the State. In addition to DJUSD, the City houses a satellite campus for Sacramento City College. Located in UC Davis' West Village, the Davis Center offers varied curriculum and programming including an advanced education program allowing qualified students to enroll in Davis Center courses while still attending high school. In addition to DJUSD, Sacramento City College's Davis Center, and UC Davis, Davis has four private schools: Davis Waldorf School (pre-school through 8th grade); Peregrine Elementary School (K through 8th grade); St. James School (K through 8th grade); and Merryhill Pre-School.

As referenced in the history section, the City is also home to the University of California, Davis or UC Davis. UC Davis is a world-class university with such varied attractions as the arboretum along Putah Creek, cultural performances, galleries, and one of the premier research general medical, and the law libraries in North America. During the 2015-16 academic year, UC Davis enrolled approximately 34,535 students. Per the University's Long-Range Development Plan, on-campus enrollment is projected to increase to 39,000 students by the 2027-28 academic year. However, many students live in Davis and contribute to a low housing vacancy rate, a great number of student's commute from the surrounding communities.

UC Davis has emerged as an acknowledged international leader in agricultural, biological, biotechnological and environmental sciences. It is gaining similar recognition for excellence of its teaching and research in the arts, humanities, social sciences, engineering, health sciences, law and management. UC Davis is the largest of the 10 University of California campuses, with 5,200 acres, second in total expenditures and third in enrollment. UC Davis' three undergraduate colleges offer students more than 100 undergraduate major programs. In addition to more than 80 minors and graduate programs, the university has four professional programs: the Graduate School of Management (ranked as one of the best business schools in the country), the School of Law, the School of Medicine, and the School of Veterinary Medicine, the latter being the only such school in California.

The UC Davis campus' reputation has attracted a distinguished faculty of scholars and scientists in all fields. The faculty ranks 16th in quality among comprehensive public universities nationwide. UC Davis stands 24th in research funding among universities in the United States, according to the most

recent statistics from the National Science Foundation. Four years ago, UCD was admitted into the prestigious Association of American Universities.

Membership in this group of 62 institutions of higher learning is by invitation only. U.S. News & World Report has repeatedly ranked UC Davis among the top public universities nationwide, placing it 10 in 2000. In addition, many of the UCD programs ranked in the top 10 nationwide.

More than 150 new varieties of fruits, grains and vegetables have sprung from agricultural research at UC Davis. The University's viticulture and enology department has influenced winemakers around the world. The University Arboretum is home to one of the best collections of dry lands plants in the country, and occupies about 200 acres along the north fork of Putah Creek. The Arboretum contains 2,000 trees, flowers and bushes, including more than a dozen rare or endangered species, and serves as an important teaching and research resource as well as a campus and community open space amenity.

UC Davis—home of the Aggies—offers a variety of intercollegiate athletic programs, club sports and recreation for everyone from the dedicated competitor to the casual enthusiast. UC Davis is two-time winner of the Sears Directors' Cup for National Collegiate Athletic Association Division II schools.

UC Davis has a wide range of diverse offerings in music, drama, dance, the visual arts and design throughout the year. The Department of Music sponsors nearly 100 concerts each year, including those by the University Symphony, Chorus, Chamber Singers, Early Music Ensemble, Concert Band and Electronic Music Studio. The Robert and Margrit Mondavi Center for the Performing Arts has been open since April 2002. The Mondavi Center boasts an intimate, state-of-the-art, 1,800-seat performance hall, a versatile 250-seat studio theater each with superior acoustics and all the amenities you could ask for.

PRIVATE SCHOOLS

In addition to DJUSD and UC Davis, Davis has four private schools: Davis Waldorf School (pre-school through 8th grade); Peregrine Elementary School (K through 8th grade); St. James School (K through 8th grade); and Merryhill Pre-School.

1.8 WEATHER AND CLIMATE

The Central Valley climate can be described as Mediterranean. During the hot, dry, sunny summers, temperatures can exceed 100 degrees Fahrenheit on some days; however, more often summer temperatures are in the low 90s. The Sacramento River Delta breeze usually cools overnight temperatures into the 60s. Spring and fall has some of the most pleasant weather in the state. Winters in Davis are usually mild. Temperatures drop below freezing on only a few days. The rainy season typically runs from late fall through early spring and fog season last from November through March. Average annual rainfall is about 17 inches. Table 3 shows the City of Davis weather averages.

Temperature

Rain

Humidity

	Min.	Mean	Max.	Inches	4 am	Noon	4 pm
January	37	46	54	3.69	90	73	69
April	46	60	74	1.54	86	48	46
July	57	77	97	0.00	77	37	28

Table 3: City of Davis Weather Averages
Source: University of California, Davis

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SECTION 2.0: HAZARD IDENTIFICATION AND RISK ASSESSMENT

The City of Davis identified hazards that affect the city and developed natural hazard profiles based upon the countywide risk assessment, past events and their impacts (see Figure 6).

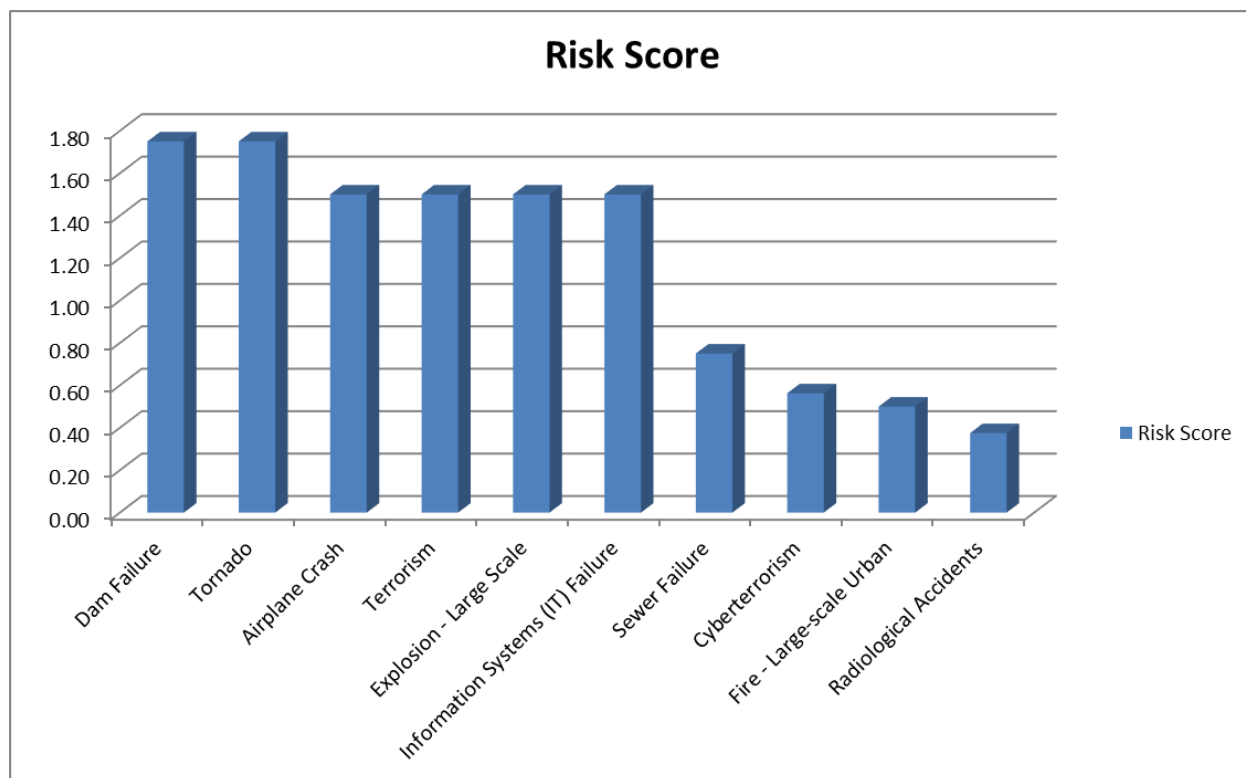


Figure 6: City of Davis Risk Assessment

Definitions for the rankings and a detailed explanation of the hazards can be found in the Hazard Identification and Risk Assessment of the Yolo County Hazard Mitigation Plan (HMP).

2.1 NATURAL HAZARDS

Of the natural hazards profiled in the Yolo County HMP for the Yolo County Operational Area, landslide has been omitted for the City of Davis. There are no landslide prone areas within the city limits. See Table 4 for the probability and extent of each natural hazard profiled for Davis.

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Flooding	Likely	Critical
Dam Failure	Unlikely	Catastrophic

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Levee Failure	Unlikely	Critical
Earthquake	Occasional	Critical
Land Subsidence	Likely	Limited
Severe Weather - Fog	Highly Likely	Catastrophic
Severe Weather - Tornado	Occasional	Critical
Severe Weather – High Wind	Highly Likely	Critical
Severe Weather – Extreme Heat	Highly Likely	Critical
Severe Weather - Freeze	Likely	Critical
Volcano	Unlikely	Catastrophic
Wildfire	Likely	Limited
Drought	Likely	Critical
Climate Change	Highly Likely	Critical

Table 4: Probability and Extent for Natural Hazards in the City of Davis

2.1.1 FLOODING

Davis is drained by Putah Creek, Dry Slough, and the Willow Slough Bypass. The old North Fork of Putah Creek east of Interstate 80 no longer carries flow from the upstream Putah Creek watershed. Rather, the North Fork only carries minor local flow from the abutting watershed downstream of the UC Davis Arboretum. This is primarily because the water it has been diverted into the South Fork for flood control. The South Fork of Putah Creek runs through the UC Davis campus eastward and

terminates in the Putah Creek Sinks, located in the Yolo Bypass at the eastern edge of Davis. Groundwater is naturally recharged in this area.

The California Department of Water Resources maintains the Willow Slough Bypass, which directs water away from Willow Slough and Dry Slough, in the eastern section of Davis, and carries water eastward to the Yolo Bypass at the eastern boundary of Davis. Willow Slough drains the valley floor between Putah and Cache Creeks. Agricultural runoff contributes water to the slough during irrigation season. Dry Slough, which forks with Willow Slough in Plainfield, has an intermittent flow. The Yolo Bypass, which runs north-south, is flooded when the Sacramento River carries high stormwater runoff levels. Water is released into the Bypass from the Fremont Weir located downstream from Knight's Landing.

Flood hazards in Davis generally consist of shallow sheet flooding caused by surface water runoff during large rain storms. Flooding could be caused by creeks and other waterways overflowing their banks along Putah Creek, Willow Slough, Dry Slough, and the edge of the Yolo Bypass.

The city's Public Works Department currently maintains (or contracts for the maintenance of) seven main channels and six detention ponds which provide for drainage and storm water detention. A seventh pond, the North Stonegate Retention Pond, is operated by a local maintenance association as well as by the City's Public Works Department. Maintenance of the channels includes removal of silt, control of weeds, and removal of brush. The Public Works Department also operates nine major and ten minor drainage pump stations.

Flood control services outside of the City are provided by the Yolo County Flood Control and Water Conservation District and the State Department of Water Resources.

2.1.2 DAM FAILURE

Davis is in the path of flooding that would occur in the event of the failure of Monticello Dam on Putah Creek (Lake Berryessa). An inundation map prepared by the Bureau of Reclamation to analyze the effects of dam failure shows that the flooding in Davis could be between one and five feet throughout the city.

2.1.3 LEVEE FAILURE

Due to Davis' geographic proximity to the Sacramento River, the City has concerns about levee failure, particularly on the eastern edge of city limits. Thus, while the Yolo Bypass, Sacramento Bypass, and SPFC facilities are adequate, a high water event does pose a threat.

Specifically, the City is concerned about effects to its existing wastewater treatment facility as well as municipal water intake and conveyance system. Besides being subject to flooding by a failure of the Willow Slough Bypass left levee, the wastewater treatment facility and the Yolo County landfill are subject to flooding from breaches in the CCSB west and south levees, the abandoned south levee of the pre-1992 CCSB, and the Yolo Bypass west levee. The City is constructing a local levee system around its WWTP in 2018 to provide flood protection for this critical facility.

2.1.4 EARTHQUAKE

Earthquakes can occur anywhere in Davis. The city lies along the eastern edge of the Coast Range-Sierran Block Boundary (CRSBB), where the Midland Fault is located (see Figure 7). The Midland Fault and the Dunnigan Hills Fault north of Woodland (see the Yolo County HMP) are the two closest active fault lines to Davis.

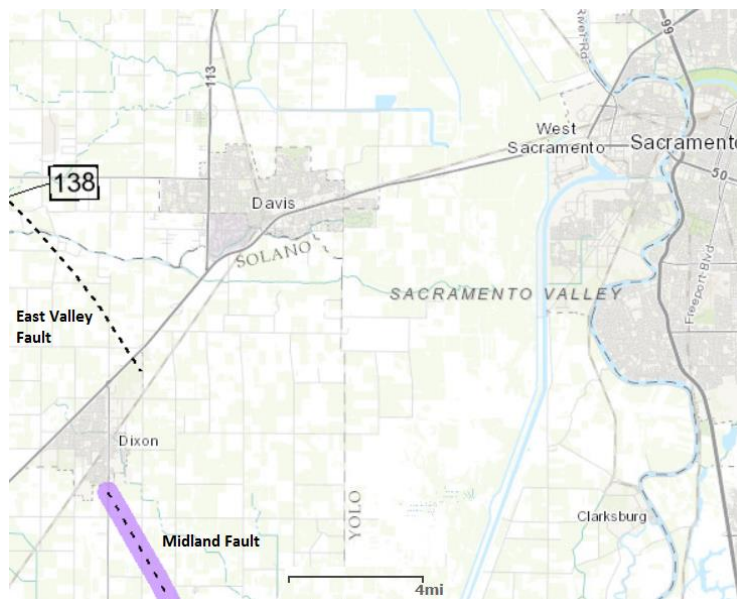


Figure 7: Fault Line near Davis

Further away, the San Andreas Fault system is located to the west and the Western Sierra Fault system is located to the east of Davis (see Yolo County HMP). Numerous quakes along these faults have been felt in Davis, most recently during the Loma Prieta Earthquake in 1989, but Davis suffered no significant damage.

The City of Davis Building Division has placed the Davis area in Seismic Design Category D. An earthquake could result in “slight damage in specifically designed structures; considerable in ordinary buildings, with partial collapse; great damage in poorly built structures.”

2.1.5 LAND SUBSIDENCE

Land subsidence could essentially occur anywhere in Davis. See the Yolo County HMP for maps of expansive soils and causes of land subsidence in Yolo County. For Davis, lower expansive soils are found closer to Putah Creek on the southern end of the city while higher expansive soils are found on the northern and western sides of the city. These areas are closer to agricultural fields where there is a higher instance of groundwater pumping, a primary cause of land subsidence. Land subsidence could have numerous impacts for Davis, including the settling of homes and businesses as well as the shifting of railroad tracks and pipelines that run through the city. Both Union Pacific and Amtrak operate trains along the Capital Corridor that runs along the southern edge of the city. This is also the location of the Kinder Morgan pipeline that runs from Sacramento to the Bay Area.

2.1.6 SEVERE WEATHER

HIGH WIND

High wind could occur anywhere in Davis and could be compounded by atmospheric river events. High winds can fell trees, which can cause subsequent damages to cars and structures as well as critical infrastructure such as power lines and water mains throughout Davis. The University Airport in Davis is also susceptible to high winds, which can cause damages to aircraft and affect airport operations.

FOG

Fog can be prevalent throughout Davis as it is located in the valley of Yolo County where fog is more apt to form. Impacts from fog can be compounded in Davis due the presence of two major highways, Interstate 80 and State Route 113, which run through the City. The potential for serious accidents exist due to fog, which could result in injuries and fatalities to motorists and first responders.

TORNADO

A tornado could touch down anywhere in Davis, and is documented as one of the top ten hazards that the city is at highest risk from (see city risk assessment). Though tornadoes in the Central Valley of California are often rare and of low intensity (EF-0 or EF-1), the potential exists for an EF-2 tornado to touch down in Davis as it did in Sacramento in 1978. While unlikely, impacts from such a tornado could be extensive depending on where the tornado touches down and how long it travels. Roofs of structures could be significantly damaged, trees could be knocked over, and cars could be overturned. A less intense EF-0 or EF-1 tornado could cause flying debris and damage to fences. Tornadoes can also produce hail, which can be damaging to cars and buildings. Figure 8 shows a tornado that was observed in Davis in 2011.



Figure 8: 2011 Tornado in Davis
Source: Sacramento Bee

EXTREME HEAT

Extreme heat can occur at any location in Davis due to its location in the valley of Yolo County. Temperatures can feel warmer in the city due to the widespread presence of concrete and asphalt, which stores heat longer. Heat waves can cause power outages and can sicken people who are exposed to high temperatures too long, particularly infants and the elderly.

Another risk with excessive heat in combination with unseasonably wet winters and springs is evapotranspiration. This process occurs when plants and trees experience an increase in growth or “push” foliage. Coupled with near 80 degree or higher temperatures will trigger trees to draw excessive amounts of water up to the tree to be expelled by the foliage. The catalyst to this event is the winds causing excess stress to weight bearing limbs, which can cause stress cracks furthering the potential for sudden limb failure. This event, also known as summer branch drop, can also occur with no wind at all, the excess water that is drawn up by the tree increases excessive weight on the limbs that can fail at any time. Other issues associated with excessive heat is Sun Scald, which is a severe burn to the trunk of thin barked trees. This will eventually degrade the outer bark, cambium layer and eventually weaken the structural integrity of the tree.

FREEZE

Freezing temperatures can occur at any location in Davis. Prolonged exposure to the cold can cause frostbite or hypothermia and can become life-threatening. Infants and the elderly are most susceptible. Pipes may freeze and burst in homes or buildings that are poorly insulated or without heat. Extreme cold can disrupt or impair communications facilities.

2.1.7 VOLCANO

Davis is not located close to any active volcanoes where there is the threat of a lahar flow. Davis could be impacted by ash fall, however, if there were to occur a significant eruption of any of the active volcanoes located throughout the state. Particular areas of concern include the Mt. Shasta, Lassen Volcanic Center, Medicine Lake, and the Clear Lake/Mt. Konocti Volcanic Field. People susceptible to respiratory illnesses would be most impacted by ash fall.

2.1.8 WILDFIRE

While Davis does have some pockets of heavy brush and timber, the more common wildfire threat comes from grass and other light, flashy fuels surrounding the City. Under the right conditions, these fires could spread to homes and infrastructure. Poor air quality from wildfires can also negatively affect health. Grass fires in Davis along roadsides and freeways may cause traffic problems due to limited visibility as well. A grass fire could occur in the Vic Fazio wildlife preserve of the Yolo Bypass east of the city.

2.1.9 DROUGHT

Drought can increase risk of wildfires. Prolonged drought conditions can also cause trees to be more susceptible to pest infestations such as Mountain Pine Beetle, Emerald Ash Borer, Asian Long-Horned Beetle and Shot Hole Borer. All of these pests can cause detrimental or fatal consequences to an Urban Forest as the primary tree species found in the City are hosts for these pests.

2.1.10 CLIMATE CHANGE

Climate change can bring a host of issues to Davis trees, as the majority of the mature species are native to a climate that is warming and cannot acclimatize. This will cause most of the native mature species to become heavily drought stressed, which can lead to limb or total tree failure. Moreover, drought stricken trees are more susceptible to invasive pests that can accelerate the decline of a tree.

2.2 HAZARD RISK ASSESSMENT – TECHNOLOGICAL AND HUMAN-CAUSED HAZARDS

2.2.1 AGRICULTURAL PESTS AND DISEASES

The City of Davis is vulnerable to myriad agricultural pests and diseases. Some of the most common threats include the yellow starthistle, Japanese dodder, walnut twig beetle, and the California ground squirrel. Given the City's and County's large agricultural community, these pests and diseases pose major threats.

2.2.2 EPIDEMIC/PANDEMIC

The City of Davis can experience the same epidemics and pandemics that occur throughout the rest of Yolo County. Mitigation measures would be taken under the general direction of the Yolo County Public Health Officer. Davis has prepared for previous potential outbreaks including swine flu, avian flu and ebola. Preparation will vary based on the nature of the disease, but primarily consists of planning for a diminished workforce, treating large numbers of affected citizens, assistance with vaccine clinics due to large crowds, and personal prevention measures.

2.2.3 HAZMAT INCIDENTS

RADIOLOGICAL

The City does not have any meaningful exposure to a nuclear power plant. It could be affected, however, by a transportation accident, a terrorist incident or war.

CHEMICAL

Chemical spills or fires may present serious health risks as well as environmental damage. Necessities such as safe drinking water and clean air may be affected.

BIOLOGICAL

A biological incident or attack would cause a strain on the emergency health system including emergency response, local hospitals and other health care facilities.

2.2.4 TRANSPORTATION COLLISIONS

VEHICLE COLLISIONS

Two major highways pass through Davis, the most prominent being Interstate 80. The potential exists for a major vehicle collision to occur on the highway, resulting in a mass casualty and/or hazmat incident. A major traffic collision on Interstate 80 involving 70 vehicles occurred in West Sacramento due to fog in 1984, causing multiple injuries.

TRAIN ACCIDENTS

Several major rail lines pass through Davis. The Union Pacific Railroad as well as the Burlington Northern and Santa Fe railroad both operate freight trains through the city. Amtrak operates passenger trains through the city with one stop. The California Northern Railroad operates freight traffic through the center of downtown Davis.

AIRPLANE ACCIDENTS

The University Airport lies on the western side of the city, and primarily handles small to medium sized private aircraft. Davis also lies in the path of several flight paths from Sacramento International Airport.

2.2.5 POWER/UTILITY FAILURE

In the event of utility failures, the City has plans in place to survive short-term disruption to these key services to maintain basic City functions.

ELECTRICAL

The City maintains back-up generators to provide power to key city facilities, including: portions of City Hall, Public Works and Parks corporation yards, Police Station, Veteran's Memorial Center, Wastewater Treatment Plant, both Water storage tanks and two water wells, one sewer lift station, and one storm water pump station. The City also maintains portable power generators to support infrastructure as needed. All generators are diesel fueled and provide a minimum of 12 hours run time before refueling is required.

GAS

The City does not have any critical infrastructure tied to PG&E gas supply. Numerous natural gas lines cross through the city. The Kinder Morgan Pipeline runs along Interstate 80 and carries hazardous liquids.

WASTEWATER SEWER

The Wastewater Treatment Plant has 100% diesel fueled backup power supply in case of PG&E power failure. On-site propane supplies all gas-fueled equipment, but no critical equipment is operated with propane.

The collection system will continue to operate in the event of a power failure. The collection system has six lift stations that are electrically powered. Only one station has an existing stationary backup generator. The collection system feeding each station has the capacity to hold wastewater a minimum of 24-hours. In the event of a major event, a portable generator would be rotated between each station to maintain adequate wastewater levels in the collection system to prevent sanitary sewer overflows.

The City Wastewater Treatment Plant is vulnerable to flooding from a levee break along the West Bypass Levee.

WATER

The City is supplied by two sources of potable water. Treated surface water is supplied by a regional water treatment plant in Woodland. This plant has 100% diesel fueled backup power supply at both the treatment plant and the intake facility located on the Sacramento River. The City has eleven active groundwater wells. Two have stationary diesel fueled backup power supply and the other wells can be powered by a portable generator as needed. Both water storage tanks (eight million gallons total capacity) have stationary diesel fueled backup power supply.

In the event of a major power failure at the regional water plant the City system is designed to maintain potable water supply via groundwater wells and the water storage tanks. The storage tanks provide the time necessary to stage any portable generators at wells that are needed for supply in the event of a long-term service interruption in treated surface water delivery. Groundwater supplies are sufficient to meet all but peak summer demand requirements. Mandatory reductions in water use would be in effect during peak summer events to ensure adequate water supply for human health needs.

STORM WATER

The City's storm water system consists of nine storm water pumping stations. One station is powered by a diesel fueled stationary generator. All but one station has the ability to be powered by a portable generator. One storm station has pumps that are operated via diesel-fueled engines but still requires a portable backup generator to maintain operations.

In 2018, City plans to commission a study on utility infrastructure backup power generation needs which will provide the basis to enhance the ability of the City utility infrastructure in the event of a major power incident.

2.2.6 COMMUNICATIONS/IT FAILURE

In the event of a communications/IT failure, the City relies on a redundant system for internet, phone, and radio access.

INTERNET

The City maintains two diverse paths with two different providers for internet access. Should one provider fail, the City configured a BGP automatic failover.

PHONE

The City has a primary and secondary VoIP installation. Thus, similar to the internet, should one installation fail, the City configured an automatic failover.

RADIO

The City maintains an 800 MHZ radio system. In the event of an outage, the City executed a memorandum of understanding with UC Davis to utilize their radio system.

2.2.7 TERRORISM

Terrorism in Davis can occur in many forms, including from an incident on the University of Davis campus during a large event.

2.2.8 CIVIL DISTURBANCE

Civil disturbance in Davis can occur as a result of numerous different activities including from a police shooting or an event at U.C. Davis. On November 8th, 2012, UC Davis police pepper sprayed a group of demonstrators who were part of the Occupy movement. Though no major violence occurred afterwards, the incident had the potential to lead to a large-scale civil disturbance event. In 2017, other large demonstrations occurred on campus.

2.2.9 URBAN CONFLAGRATION

Building and fire codes have greatly improved since a major fire swept through downtown Davis over 100 years ago, however the potential still exists for a conflagration involving multiple commercial and residential structures. This is true of any area of the City with multiple structures in close proximity. The City's fire department will mitigate fires with the intent to keep them from becoming large conflagrations. In the event that the City's limited resources are overwhelmed, help will be requested from neighboring fire departments. For large-scale conflagrations, help will be requested from the state's Office of Emergency Services. CalOES will coordinate mutual-aid response from surrounding agencies throughout the state if necessary.

2.3 PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

The City of Davis participates in the NFIP and continues to enforce the compliance with the NFIP through their Flood Plain Management Ordinance. However, as in much of California, FEMA is working with local governments to refine and remap the floodplains. These changes to flood mapping and zoning may result in additional properties needing to be insured and evaluated in future plans.

CID #	Community Name	FHBM Identified	FIRM Identified	Current Effective Map Date	Reg-Emer Date	Tribal
060424	City of Davis	11/08/77	11/15/79	06/08/10	11/15/79	No
060728	City of West Sacramento		03/05/90	01/19/95	03/13/90	No
060425	City of Winters	01/23/74	12/01/78	06/18/10	12/01/78	No
060426	City of Woodland	02/01/74	10/16/79	05/16/12	10/16/70	No
060423	Yolo County	10/18/77	12/16/80	05/16/12	12/16/80	No

Data obtained from the FEMA Community Status Book Report, <http://www.fema.gov/fema/csb.shtm>

Below is the NFIP policy and claims statistics for the City of Davis as of March 2013. The NFIP claims statistics are historical back to 1982/1983 when NFIP started collecting this data.

Community	Total Premium	Current Policies	Total Coverage	Flood Losses	Dollars Paid Historical
Davis	\$234,692	304	\$94,104	11	\$189,021

As of 2017, there are three repetitive loss properties and zero severe repetitive loss properties in the City of Davis. Total RL payouts are \$80,350.20.

The City of Davis does not participate in the Community Rating System.

SECTION 3.0 MITIGATION STRATEGY

3.1 CAPABILITY ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capability assessment is divided into five sections: regulatory, administrative and technical, fiscal, outreach and partnerships, and other mitigation efforts.

3.1.1 REGULATORY CAPABILITY

The legal and regulatory capabilities of each jurisdiction are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of each jurisdiction. Examples of legal and/or regulatory capabilities can include: a jurisdiction's building codes, zoning ordinances, subdivision ordinances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

City of Davis Regulatory and Planning Capabilities

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Building code	√	√	√	√	√	√
Zoning ordinance	√	√	√	√	√	√
Subdivision ordinance or regulations	√	√	√	√	√	
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	√	√	√	√	√	√
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	√	√	√	√	√	√
Site plan review requirements	√	√	√	√	√	√
General or comprehensive plan	√	√	√	√	√	
A capital improvements plan	√	√	√		√	√
An economic development plan	√	√	√	√	√	√
An emergency response plan	√	√	√	√	√	√
A post-disaster recovery plan				√		√
A post-disaster recovery ordinance						

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Real estate disclosure requirements	√	√	√	√	√	
Habitat Management Plan	√	√	√	√	√	
Master Drainage, Sewer, Water, & Reclaimed Water	√	√	√	√	√	√
Redevelopment Master Plan	√	√	√	√	√	

Source: Steering Committee

Executive Governance

Davis operates under the Council-Manager form of government with a five-member council, elected at large by city residents. The City Manager serves as the administrative head of city government overseeing the departments of Community Development and Sustainability, Fire, Parks and Community Services, Police, and Public Works.

Dedicated to citizen participation, the city has fifteen council-appointed commissions that are devoted to various aspects of community life, including such elements as planning, recreation, finance/economics, natural resources and university student relations.

Policy & Direction

The primary government of the City of Davis includes the activities of the city as well as the Davis Redevelopment Agency (RDA), the Public Facilities Financing Authority, and the Davis Comstock Recreation Corporation. All of which are controlled by and dependent on the city.

Cities are “local” governments, voluntarily formed by and for their citizens, to provide for local self-determination of community issues. The City of Davis is a municipal corporation operating under the general laws of the State of California. It endeavors to create a livable community with a high quality of life through land-use policies that balance the need for housing, jobs, open space and essential services. The city is a legally separate and fiscally independent agency. It can issue debt, set and modify budgets, fees and sue or be sued.

The RDA was established to assist in the clearance and rehabilitation of city areas determined to be in a declining condition. The Agency has the same governing board as the city. Its activities are intended to finance capital improvements and economic development to benefit the city.

All accounting and administrative functions are performed by city staff. City Council members serve as Directors of the RDA. The City Manager is the Executive Director.

The Public Facilities Financing Authority was established solely to assist in the issuance of certain bonds for a series of Community Facilities Districts for the construction of infrastructure and improvements under the State Mello-Roos Act. The authority is controlled by and financially dependent on the city. Its financial activities are included in the capital projects and fiduciary funds. The Davis Comstock Recreation Corporation is a non-profit organization established in 1967 to finance the acquisition and improvement of the Davis Municipal Golf Course. The city leases the golf

course from the corporation. City management controls and directs the affairs of the corporation and when the lease expires the city will receive title to all remaining assets of the corporation. As a “general-purpose” city, Davis provides essential frontline municipal services, described below. The city funds these activities through a variety of locally enacted revenues (parcel taxes, user and license fees, etc.) and with state shared revenues (property tax, sales tax, motor vehicle license fees).

Community Development and Sustainability Department

The Department of Community Development and Sustainability is responsible for a wide range of functions related to community change evolution, enhancement and preservation. Areas of responsibility include planning and zoning, building inspection and plan check services and economic development. Specific task areas include current and advanced planning, zoning administration, environmental impact studies, management of historic structures, sustainability management, agricultural conservation, city property acquisition and management, code compliance, resale inspections, downtown redevelopment and public information. The Department strives to provide vision and leadership within the context of innovative, high quality, equitable and efficient services which encompass and reflects community values.

Fire Department

In addition to responding to fires, environmental accidents and natural disasters, the Davis Fire Department also offers comprehensive fire safety programs and is the “first responder” in providing emergency medical services. See Section 3.1.2 for more information.

Parks and Community Services Department

The Parks and Community Services Department creates and enhances the quality of life for Davis residents and its visitors by providing a diverse array of programs, services and recreational facilities. The department consists of three distinct divisions including Aquatics and Pool Maintenance, Recreation and Community Services, and the Parks and Urban Forestry division.

A variety of recreational opportunities are provided for residents of all ages, including aquatics, alternative recreation for persons with disabilities, gymnastics and dance programs, outdoor education, specialty camps, special interest classes, teen services, senior services, youth and adult sports, paratransit, and the rental of community facilities, athletic fields, parks, and picnic areas. Davis is also proud to be responsible for the oversight and maintenance of over 485 acres of parks, greenbelts and an abundance of street trees.

Police Department

The Davis Police Department provides a law enforcement system that uses departmental, civic and community resources to protect lives and property of its citizens. See Section 3.1.2 for more information.

Public Works Department

The Public Works Department performs administrative, technical and operational activities in support of the City’s infrastructure and related services in the following areas; Transportation, Waste Water, Storm Drainage, Water, Engineering, Solid Waste, Fleet, Building Facilities and Capital Improvements. The Department strives to protect the City’s investment in its infrastructure and public facilities, plans for future improvements to address changing needs, and ensure the health and safety of the community in the most efficient and cost effective manner.

General Plan

The following elements of the City of Davis General plan are associated with hazard mitigation. The full text of the documents can be found on the City of Davis web site at: <http://community-development.cityofdavis.org/city-of-davis-general-plan-december-2007>.

Municipal Ordinances

The following City of Davis ordinances are applicable to affecting mitigation development and emergencies. The full text of the documents can be found on the City of Davis web site at: <http://cityofdavis.org/municipal-code>.

- [9.01.010 Purposes.](#)
- [9.01.020 Definition.](#)
- [9.01.030 Disaster council membership.](#)
- [9.01.040 Disaster council powers and duties.](#)
- [9.01.050 Director and assistant director of emergency services.](#)
- [9.01.060 Powers and duties of the director and assistant director of emergency services.](#)
- [9.01.070 Emergency organization.](#)
- [9.01.080 Emergency plan.](#)
- [9.01.090 Expenditures.](#)
- [9.01.100 Punishment of violations.](#)

3.1.2 ADMINISTRATIVE AND TECHNICAL CAPABILITY

The **Administrative and Technical Capability** table identifies the city personnel responsible for activities related to mitigation and loss prevention in the City of Davis. Many positions are full time and/or filled by the same person. A summary of technical resources follows.

City of Davis Personnel Capabilities

Personnel Resources	Department/Position
Engineer and/or Planner with knowledge of land development/land management practices	Community Development and Sustainability
Professional trained in construction practices related to buildings and/or infrastructure	Public Works
Full time Building Official	Community Development and Sustainability
Floodplain Manager	Community Development and Sustainability
Emergency Manager	City Manager's Office, Fire Department
Grant Writer	Various Departments
Other Personnel Resources	Various Departments

Source: Steering Committee

Davis Police Department

The Davis Police Department is a municipal law enforcement agency, currently staffed with 62 sworn police officers, 45 support professionals and normally one police patrol dog, plus the ever important

Police Department volunteers. As part of the City of Davis' public safety team, the Police Department provides professional law enforcement, order maintenance, crime prevention planning, and coordination services that contribute to discouraging criminal behavior and enhance community livability and sustainability. To further accomplish the public safety mission, the city works closely with the Davis Fire Department and the University of California Davis Police Department, as well as fellow Yolo County and regional law enforcement and criminal justice partners. The Department values those partnerships. The city's sharing resources and best practices theory helps strengthen and improve the quality of public safety in and around Davis.

Davis Fire Department

The Fire Department provides pre-hospital emergency medical services at the EMT-1D level; minimizes loss from fires, hazardous materials incidents and natural disasters and other emergency services; and ensures that the community's emergency service resources are effectively and efficiently managed. The Fire Department coordinates citywide planning for large scale disasters and emergency incidents.

The City of Davis Fire Department is staffed by 36 shift personnel (9 captains and 27 firefighters), one fire chief, three division chiefs, one fire prevention division chief and three administrative staff. The department consists of three fire stations located in Central, West, and South Davis. The shift personnel (firefighters) are divided into three shifts, each shift working a 24 hour day (56 hour work week).

Department equipment consists of 3 engines, 1 rescue, 1 squad, 2 grass/wildland units, 1 water tender, 2 reserve engines and two antique fire apparatus.

The Fire Department has contractual agreements with the East Davis County Fire Protection District, the Springlake Fire Protection District and No Man's Land Fire Protection District for emergency response to these areas. The city and these three districts are divided into 3 emergency first-response areas. These areas provide a clearly defined territory for dispatching the nearest fire and EMS personnel and equipment to an emergency.

The department has an automatic aid agreement with the University of California at Davis and the cities of Woodland, West Sacramento and Dixon and a mutual aid agreement with all other fire protection agencies in Yolo County and in the State of California.

Emergency Management/Preparedness

Reference, City of Davis Emergency Operations Plan (EOP), Sec. 1.0 (Basic Plan)

The Basic Emergency Plan addresses the City of Davis planned response to extraordinary emergency situations associated with natural, technological and human caused emergencies or disasters within or affecting the City of Davis. This plan is the principal guide for the City of Davis response to, management of, and recovery from real or potential emergencies and disasters occurring within its designated geographic boundaries. Specifically, this plan is intended to:

- Facilitate multi-jurisdictional and interagency coordination, particularly between local government, operational area (geographic county boundary), and state response levels, and appropriate federal agencies, in emergency operations.
- Serve as an operational plan as well as a reference document and may be used for pre-emergency planning as well as emergency operations.
- To be utilized in coordination with applicable local, state and federal contingency plans.
- Guide users through the four phases of emergency management: mitigation, preparedness, response, and recovery.
- Identify the components of an Emergency Management Organization (EMO), and establish associated protocols required to effectively respond to, manage and recover from major emergencies and disasters.
- Establish the operational concepts and procedures associated with field response to emergencies, Emergency Operations Center (EOC) activities, and the recovery process.
- Establish the organizational framework for implementation of the California Standardized Emergency Management System (SEMS), and the National Incident Management System (NIMS), within the City of Davis.

3.1.3 FISCAL CAPABILITY

The **Fiscal Capability** table shows specific financial and budgetary tools available to the jurisdictions such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

City of Davis Available Financial Tools and Resources

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Community Development Block Grants	√	√	√	√	√*	
Capital improvements project funding	√	√	√	√	√	
Authority to levy taxes for specific purposes	√	√	√	√	√**	
Fees for water, sewer, gas, or electric service	√	√	√	√	√	
Impact fees for homebuyers or developers for new developments/homes	√	√	√	√	√	
Incur debt through general obligation bonds	√	√	√	√	√**	
Incur debt through special tax and revenue bonds	√	√	√	√	√**	
Incur debt through private activity bonds	√	√	√	√	√**	
Withhold spending in hazard-prone areas	√	√	√	√	√	

* Subject to grant from State

** Subject to voter approval

Source: Steering Committee

Financing

Major revenue sources for the overall 2017-18 city budget include: property tax (11.90%), sales tax (7.96%), service charges (26.00%), intergovernmental revenue (7.67%), other taxes (6.05%) and

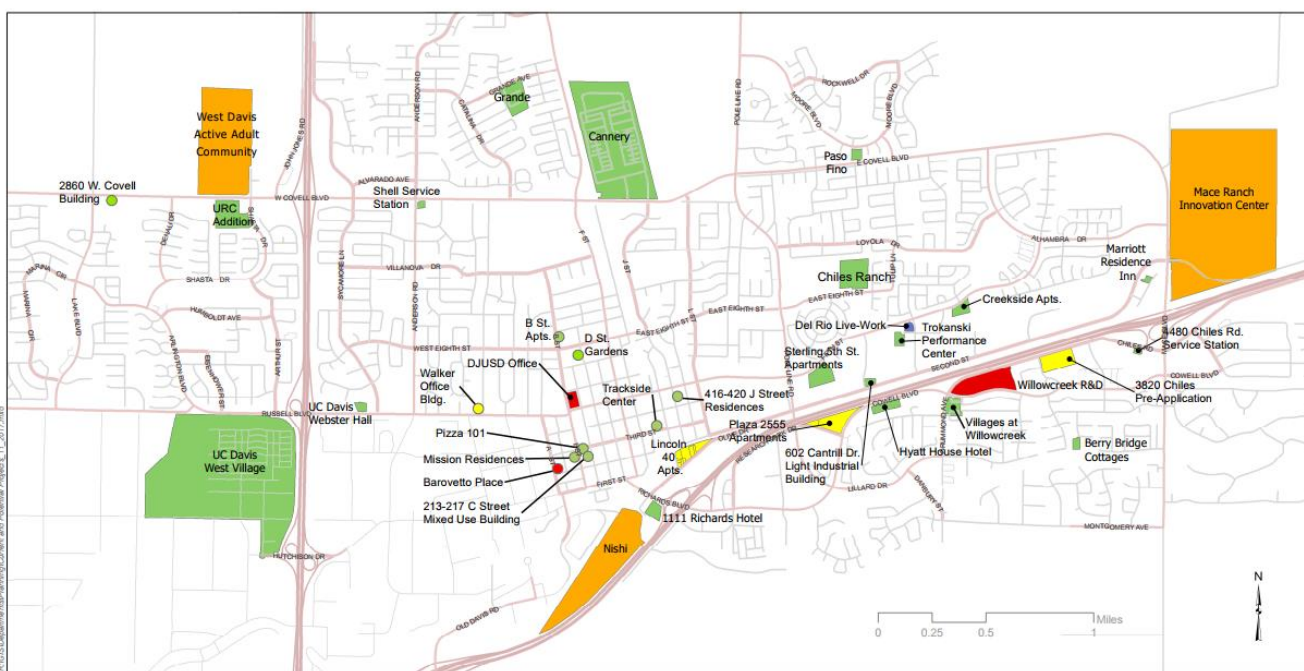
all other revenues (18.79%). Within the General Fund budget, principal revenue sources are property taxes (37.07%), sales and use taxes (29.34%), and other taxes (14.19%). Major expenditures in the General Fund include Police (32.26%), Parks and Community Services (20.39%); and Fire (16.86%).

3.1.4 COMMUNITY OUTREACH

The following community programs links are hosted through the City of Davis and are listed on the City web site main page under: <http://cityofdavis.org/visitors>.

3.2 FUTURE DEVELOPMENT TRENDS

As referenced in Section 1.0, the City is currently experiencing a development boom. According to the Community Development and Sustainability Department, the City recently approved six housing projects totaling 397 units. The Department estimates an additional five housing projects are under review, which could add another 3,179 units of housing with numerous other project applications anticipated. The map below highlights major projects as of November 2017 and identifies each project's stage in the development process.



Major Current and Potential Projects
For General Information Only
November 2017

- Potential, Land Entitlements Needed
- Subject to City Review and Measure R Vote
- Land Use Entitlements in Review
- Under Construction or Pending Construction
- Recently Completed

Figure 9: Map of Major Current and Potential Development Projects
Source: City of Davis, November 2017

Sustainability

Davis can trace its sustainability roots back more than 40 years to the date the community decided to establish the first bike lanes in the United States. With this seemingly simple act of painting lines on its streets, the Davis community set in motion a series of local actions that established it as one of the early leaders in the sustainable communities' movement.

This movement has taken hold in recent years as the potential consequences of climate change, species decline, and reliance on non-renewable energy supplies have come into sharper focus. With its early actions to establish alternatives to automobile travel, energy conservation, solar energy production, farmland and habitat protections, inclusionary housing programs, and innovative land use policies, Davis is well positioned to fight global warming and work toward a more sustainable future.

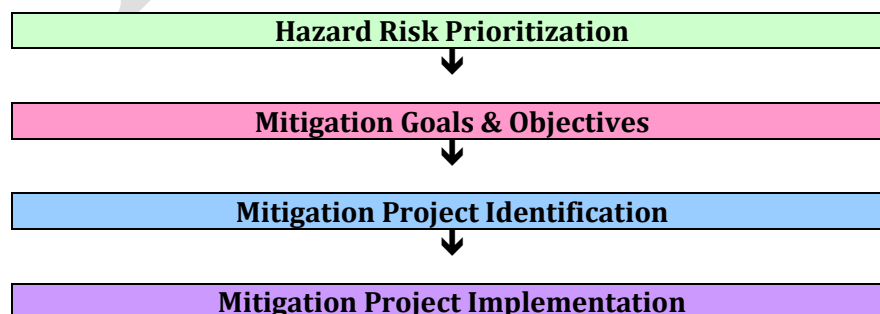
Sustainability is a general concept used to describe a community that considers the long-term effects of its decisions on future generations and the natural world. It is a tool that helps individuals, communities, states, and nations focus on what needs to be done to ensure that future generations and natural communities are stable and thrive. In practice this means that a community recognizes that economy, society, and environment are mutually dependent and need to be balanced. To move toward sustainability, communities and individuals must incorporate this concept into both long-term and day-to-day decisions.

For most communities this requires a new mindset. For Davis this means a renewed focus on established core community values of innovation and conservation and building on existing programs. This will allow Davis to take positive steps toward sustainability and provide an even stronger example of a community designed to address and adapt to the environmental challenges on the horizon.

In 2000, the City of Davis had a population of 60,308 people. As of 2006, estimates indicated that the city's population had increased to 64,606 people in total, and with the 2010 release of census data the city's population was tallied at 65,622 individuals. This represents approximately a 1.57% population increase since 2006.

3.3 MITIGATION GOALS

The information developed for the risk assessment was used as the primary basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines explaining what each jurisdiction wants to achieve in terms of hazard and loss prevention.



Goal statements are typically long-range, policy-oriented statements representing jurisdiction-wide visions. Objectives are statements that detail how each jurisdiction's goals will be achieved, and typically define strategies or implementation steps to attain identified goals. Other important inputs to the development of jurisdiction-level goals and objectives include performing reviews of existing local plans, policy documents, and regulations for consistency and complementary goals, as well as soliciting input from the public.

The following represents overarching strategic goals associated with the identification and eventual implementation of appropriate and meaningful hazard mitigation efforts in relation to prioritized hazards and threats confronting the City of Davis. The City of Davis has adopted the hazard mitigation goals and objectives from the Yolo County Hazard Mitigation Plan. These goals form the basis for specific supporting process objectives and are shown from the highest priority, at the top of the list, to those of lesser importance.

The establishment of hazard mitigation goals represents both individual and collective strategies that have been mutually agreed upon by the Steering Committee, and have not changed with the 2018 HMP update. Eventually, these goals will be adopted by each participating jurisdiction and public agency as the guiding policy behind local hazard mitigation efforts, in conjunction with other associated principles.

Goal 1:	Protection of life during and after the occurrence of disasters from identified hazards;
Goal 2:	Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
Goal 3:	Protection of emergency response capability
Goal 4:	Protection of developed property, homes and businesses, industry, educational opportunities and the cultural fabric by combining hazard loss reduction with the community's environmental, social and economic needs
Goal 5:	Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives
Goal 6:	Preserving or restoring natural mitigation values such as flood plains.
Goal 7:	Protection of natural resources and the environment.

Planning Process Objectives

The following objectives are meant to serve as a metric upon which the Yolo Operational Area Hazard Mitigation Plan can be evaluated. Meeting these objectives assures the Multi Hazard Mitigation Plan as a functional document that identifies short-and long-term strategies, and describes each measure including:

Objective 1:	Identification of individuals, agencies or organizations responsible for project implementation.
---------------------	--

Objective 2:	Projecting a realistic and doable time frame for project implementation.
Objective 3:	Explanation of how the project will be financed including the conditions for financing and implementation as information is available.
Objective 4:	Identification of alternative measures, should financing not be available.
Objective 5:	Maintain consistent support for the implementation of existing hazard mitigation planning goals and objectives for the operational area.
Objective 6:	Base mitigation strategies on hazards as identified within the Yolo OA Risk Assessment.
Objective 7:	Provide significant potential for the effective reduction of damage to public and/or private property, or to costs associated with local, state, and federal recovery from future potential impacts.
Objective 8:	Establish and maintain a benchmark for identifying the most practical, cost effective, socially acceptable, and environmentally sound mitigation solution after consideration of available alternatives.
Objective 9:	Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential for loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering.
Objective 10:	Meet applicable permit requirements.
Objective 11:	Develop mitigation standards for development in hazardous areas.
Objective 12:	Contribute to both the short-and long-term solution to the hazard vulnerability risk problem.
Objective 13:	Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation.
Objective 14:	Have manageable maintenance and modification costs.
Objective 15:	When feasible, be designed to accomplish multiple objectives including improvement of life safety, damage reduction, restoration of essential services, protection of critical infrastructure, security of economic development, recovery, and environmental sustainability.
Objective 16:	Whenever feasible, use existing resources, agencies and programs to implement the project.

Objective 17: Include regional hazard mitigation concerns and strategies

3.4 MITIGATION PROJECTS

The following mitigation projects were identified based on the hazard vulnerability and risk analysis for the City of Davis:

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
All Hazards Public Awareness and Disaster Preparedness	All / Yolo County Office of Emergency Services (OES)	Existing (2005)	Yolo County OES General Fund	Ongoing	Important element of CRS program
Convene Local/Tribal Disaster Councils	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	2020	Disaster Councils are being joined into one OA Coordinating Group
Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	Yolo County and the Cities of Davis, West Sacramento, Winters, and Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Community Warning System	All / Yolo County OES	COMPLETE D (2005)	Yolo County OES General Fund	Completed	These systems are continually updated due to changing technology
Care and Shelter Planning to include People with Disabilities, the Elderly, Access and Functional Needs, and Animals	All / Yolo County Health and Human Services Agency (HHSA)	Existing (2013)	Yolo County OES General Fund	Ongoing	Rapidly changing planning effort due to evolving best practices

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Community Emergency Response Training	Cities of Davis / Fire Department and West Sacramento / Fire Department	COMPLETE D (2013)	Yolo County OES General Fund	Completed	Basic level of preparedness for families and neighborhoods
Develop Public Health and Mass Care Tiered Response System Countywide	All / Yolo County HHSA	DELETED (2013)	DELETED	Deleted	Major advance in capability within medical and human services communities to meet needs of Yolo County residents
2018 Yolo County Hazard Mitigation Plan Update	All / Yolo County OES	NEW (2016)	PDM, HMGP	2018	Five-year required update
DROUGHT					
Drought Contingency Plan	All / Yolo County OES	Existing (2013)	PDM, HMGP	2018	Ongoing
Drought Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change
EARTHQUAKE					
Non-Structural Mitigation Outreach Program	All / Yolo County Community Services Department	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
FLOODING/LEVEE FAILURE					
Promote Flood Insurance (Cont'd participation in the NFIP)	Yolo County and the Cities of Davis, West Sacramento, Winters, Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Davis Wastewater Treatment Plant Road Elevation	Davis / Public Works Department	NEW (2017)	PDM, HMGP	2019	Ongoing
Davis Wastewater Treatment Plant Berm	Davis / Public Works Department	NEW (2017)	PDM, HMGP	2019	Designed to 500-year floodplain standards
FIRM Map Updates	Davis / Public Works Department	NEW (2017)	PDM, FMA	Ongoing	To include H Street Pump Station

The strategies presented are deemed appropriate and effective by recommendation of the City of Davis.

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SECTION 4.0: PLAN REVIEW, EVALUATION AND IMPLEMENTATION

4.1 PLAN ADOPTION

Upon submission to the California Office of Emergency Services (CalOES) for review, and subsequent approval by the Federal Emergency Management Agency (FEMA), the Yolo County Hazard Mitigation Plan will be presented to local government for formal adoption. As appropriate, the adopted plan and accompanying City of Davis Community Profile will then be incorporated into local general plans for integration into organizational policy.

4.2 PLAN MONITORING

The process of hazard mitigation does not end with the completion, approval, and adoption of the Yolo County Hazard Mitigation Plan and the City of Davis Community Profile. Within the lifespan of these documents (five years), local government along with community-based organizations will ensure that the mitigation goals and strategies identified are monitored, that plan administration will continue under a collaborative and cooperative umbrella, and that the document itself will be properly maintained.

The Yolo County Office of Emergency Services, as lead coordination agency for hazard mitigation planning within the Yolo OA, and will assist and support the ongoing collaborative efforts of the City of Davis, through the established Hazard Mitigation Steering Committee. Specific plan maintenance activities by the Yolo County Office of Emergency Services and the City of Davis may include:

- Distribution of the HMP and Community Profile to all interested parties, including both written and digital formats
- Monitoring of the City of Davis mitigation project activities and dissemination of status reports
- Generation of reports relative to plan status, project management, and revision updates to executive leadership
- Preparations for plan eventual revision and updating

4.3 PLAN EVALUATION

Upon approval and adoption by the City of Davis, the prioritized mitigation strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

The mitigation strategies represented and adopted within this plan are recommendations only, and must be approved and funded in order to be implemented as official mitigation solutions. Ultimately, it is the responsibility of jurisdictional and agency officials within the Yolo Operational Area to undertake project implementation based upon identified mitigation strategies, funding availability,

and local need when it arises. The Yolo County Office of Emergency Services will meet with the Hazard Mitigation Steering Committee to evaluate the plan after each update meeting.

4.4 PLAN UPDATE

During the five-year update cycle, the Yolo County Office of Emergency Services will hold tri-annual update meetings with the Hazard Mitigation Steering Committee and local stakeholders to discuss revisions to the plan. The Yolo County Office of Emergency Services will continue to hold public meetings after the first and third update meetings annually, and will continue to invite public participation in the update process via updated public surveys.

DRAFT

APPENDIX A: ADOPTION LETTER

DRAFT

APPENDIX F: COMMUNITY PROFILE – CITY OF WOODLAND

DRAFT



This document is a support annex to the
Yolo County Multijurisdictional Hazard
Mitigation Plan

City of Woodland Community Profile

Version 1.0

December 2018



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ACKNOWLEDGEMENTS

The City of Woodland would like to thank those Yolo County Operational Area collaborators and partners who participated in the planning and development of this document.

The official Yolo County Operational Area Hazard Mitigation Steering Committee provided the oversight and dedication to this project that was required and without their commitment; this project would not be possible.

As with any working plan, this document represents planning strategies and guidance as understood as of the date of this plan's release. This plan identifies natural hazards and risks and identifies the hazard mitigation strategy to reduce vulnerability and make the communities of the City of Woodland more disaster resistant and sustainable.

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DRAFT

1.1 INTRODUCTION

1.2 PLANNING PROCESS

1.3 OVERVIEW

Woodland is a medium sized municipality located in the relative central portion of Yolo County. The designated county seat, Woodland is a mix of residential neighborhoods, commercial establishments, industry, recreational facilities, government offices, and service activities. With its proximity to both major highway and rail corridors, Woodland serves as the major agricultural support center for Yolo County, being host to both the processing and shipment of crops and other agricultural commodities. See Figure 1 for a map of the City of Woodland.

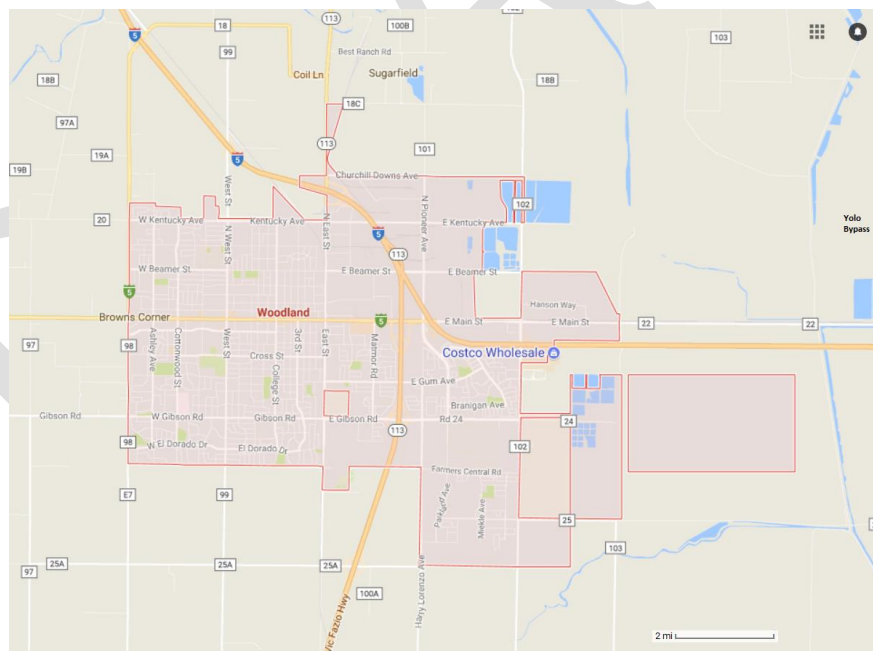


Figure 1: Map of the City of Woodland

1.4 HISTORY

In the winter of 1853, Henry Wyckoff settled in a dense grove of oak trees and opened a small store in Yolo City. Within a couple of years, other businesses were established in the area, and the favorable soil attracted other settlers who found farming to be a profitable venture. The settlement grew around what is now Main Street, and the town was renamed Woodland in 1858. Woodland became the Yolo County Seat in 1862 and was incorporated on February 22, 1871.

1.5 WEATHER AND CLIMATE

The Central Valley climate can be described as Mediterranean. During the hot, dry, sunny summers, temperatures can exceed 100 degrees F on some days, however more often summer temperatures are in the low 90s. The Sacramento River Delta breeze usually cools overnight temperatures into the 60s. Spring and fall has some of the most pleasant weather in the state. The rainy season typically runs from late fall through early spring and fog season last from November through March. Table 1 shows the City of Woodland weather averages.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average temp. (°F)	45.7	50.6	54.9	59.9	66.7	73.0	76.4	75.5	72.2	64.5	53.0	45.6
High temperature (°F)	53.7	60.3	65.5	72.6	80.9	89.0	94.0	93.2	88.6	78.7	63.5	54.1
Low temperature (°F)	37.6	40.9	44.2	47.2	52.4	57.0	58.7	57.8	55.8	50.3	42.5	37.0
Precipitation (in)	4.5	4.1	3.3	1.1	0.6	0.2	0.0	0.0	0.4	1.1	2.5	3.0

Table 1: City of Woodland Weather Averages

1.6 DEMOGRAPHICS

According the California Department of Finance, the population of Woodland was 58,615 in 2016 and is 59,616 in 2017 which represents a 1.7% increase. According to the US Census - American Community Survey 2016 data, the age and sex of persons and housing information within the City of Woodland are as follows:

Subject	Woodland city, California					
	Total		Male		Female	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total population	57,552	+/-41	28,174	+/-563	29,378	+/-563
AGE						
Under 5 years	6.7%	+/-0.6	7.7%	+/-0.9	5.8%	+/-0.7
5 to 9 years	7.1%	+/-0.7	8.1%	+/-1.0	6.2%	+/-0.9
10 to 14 years	7.5%	+/-0.7	7.3%	+/-1.1	7.8%	+/-1.0
15 to 19 years	7.3%	+/-0.7	7.0%	+/-0.8	7.5%	+/-1.1
20 to 24 years	7.2%	+/-0.8	6.8%	+/-1.0	7.7%	+/-1.0

25 to 29 years	7.1%	+/-0.7	7.9%	+/-1.1	6.5%	+/-0.7
30 to 34 years	6.9%	+/-0.6	7.1%	+/-0.9	6.7%	+/-0.8
35 to 39 years	5.8%	+/-0.6	5.7%	+/-0.8	5.8%	+/-0.8
40 to 44 years	7.1%	+/-0.6	7.4%	+/-0.9	6.9%	+/-0.7
45 to 49 years	6.7%	+/-0.5	6.2%	+/-0.7	7.3%	+/-0.7
50 to 54 years	6.7%	+/-0.5	7.4%	+/-0.8	6.0%	+/-0.7
55 to 59 years	6.0%	+/-0.6	6.4%	+/-0.8	5.6%	+/-0.7
60 to 64 years	5.2%	+/-0.6	4.6%	+/-0.7	5.7%	+/-0.8
65 to 69 years	4.1%	+/-0.4	3.8%	+/-0.6	4.4%	+/-0.6
70 to 74 years	2.7%	+/-0.4	2.4%	+/-0.6	2.9%	+/-0.6
75 to 79 years	1.8%	+/-0.4	1.3%	+/-0.4	2.2%	+/-0.6
80 to 84 years	1.6%	+/-0.3	1.3%	+/-0.4	1.8%	+/-0.4
85 years and over	2.4%	+/-0.4	1.6%	+/-0.4	3.2%	+/-0.6

Age and Sex in City of Woodland

Subject	Woodland city, California			
	Estimate	Margin of Error	Percent	Percent Margin of Error
HOUSING OCCUPANCY				
Total housing units	20,812	+/-472	20,812	(X)
Occupied housing units	19,768	+/-389	95.0%	+/-1.1
Vacant housing units	1,044	+/-250	5.0%	+/-1.1
Homeowner vacancy rate	1.0	+/-0.7	(X)	(X)
Rental vacancy rate	3.8	+/-1.7	(X)	(X)

Age and Sex in City of Woodland

1.7 ECONOMY AND TAX BASE

According to the City's 2035 General Plan, Woodland strives to provide high quality services for residents and businesses while also maintaining a fiscally sustainable budget. The City's entire adopted budget for FY 2015-16 was about \$158 million, of which about 28 percent is the General Fund, the City's primary discretionary funding source. The General Fund gets the majority of its money from property taxes and property-based revenues; economically sensitive revenues such as sales tax, business license tax, transient occupancy tax, etc; interest and fees such as ambulance fees; and parking and traffic fines. The balance of the City budget is comprised of other funding sources such as grants, special tax revenue (like parks, libraries and paramedic services) and fees for specific services (marina berth fees, garbage and sewer fees, building permits, etc). Revenue generated from these sources must be spent on very specific services. For example, the City cannot use revenue collected from sewer fees to fund police officers.

1.8 CRITICAL FACILITIES

The following list of facilities has been determined to be critical to the ability of the City of Woodland to fulfill the requirements of its mission during an emergency:

Item #	Facility	Address
131	City Hall	300 First Street

Item #	Facility	Address
132	Police Department	1000 Lincoln Ave
134	Community & Senior Center	2001 East Street
	Fire Station #1	101 Court Street
152	Fire Station #2	1619 West St
153	Fire Station #3	1550 Springlake Ct
191	Water Well #51	Elm & Maedel
192	Water Well #12	Kentucky Ave west of Rd 101
193	Water Well #13	Cottonwood & El Dorado
194	Water Well #15	Thomas St & Matmor St
195	Water Well #16	Crawford & College
196	Water Well #18	Gibson Rd
197	Water Well #19	Sutter St Yard
198	Water Well #20	West Court Street
199	Water Well #21	Kentucky & Cottonwood
200	Well #1	409 5 th St
201	Well #4	Beamer & Walnut
202	Well #6	Grand between Lincoln and Mai
203	Well #7	California St
205	Well #9	6 th & El Dorado
206	Well #10	Bemmerly & Wycoff
207	Well #11	Cottonwood & W. Southwood
208	Well #14	CR101 & Case Place
209	Well #17	Rd 98 & W El Dorado
200	Well #28 (ASR)	Court & Sixth
201	Well #29 (ASR)	Beamer & Walnut
	Ground Level Storage Tank and Booster Pump Station	Rd 98 & W El Dorado
210	Municipal Service Center	655 Pioneer Ave
211	Water Tank	Christiansen Park
212	Public Library	250 First St
215	Shop & Maintenance	42323 County Road 24
216	Electrical Building	42323 County Road 24
217	Chlorine/Sulfur Dioxide Building	42323 County Road 24
218	North Building and Well	42323 County Road 24
219	South Pump Station	42323 County Road 24

Item #	Facility	Address
220	Recycled Water Backup Well	42323 County Road 24
221	West Levee Pump Station	42323 County Road 24
222	North Pump Station	42323 County Road 24
223	Operations & Lab Building	42323 County Road 24
224	Other Equipment & Concrete Structures	42323 County Road 24
225	Storm Drainage Pump Station	Beamer St
	Gibson Ranch Lift Station	Gibson Road & Farnham
226	Spring Lake Lift Station	Farmers Central Road
	WDXWA RWTF	855 CR 102

Table 2: City of Woodland Critical Facilities

HEALTH CARE FACILITIES

The following acute care hospital/medical facility is located in and provides service to Woodland:

- Woodland Healthcare

The following skilled nursing facilities provide service to Woodland:

- St. John's Retirement Village
- Courtyard Healthcare
- Alderson Health Care
- Woodland Skilled Nursing
- Cottonwood Health Care

EDUCATIONAL FACILITIES

The following public primary and secondary schools are located in Woodland:

Senior High Schools

- Woodland Senior High School
- Pioneer High School
- Yolo Youth Academy
- Alternative/Opportunity
- Cesar Chavez Community School

Intermediate/Middle Schools

- Douglass Junior High
- Lee Junior High

Elementary/Primary Schools

- Beamer Elementary
- Dingle Elementary
- Freeman Elementary
- Gibson Elementary

- Maxwell (Rhoda) Elementary
- Tafoya (Ramon S.) Elementary
- Whitehead (T.L.) Elementary
- Woodland Prairie Elementary
- Springlake Elementary
- Zamora Elementary

The following private primary and middle schools are located in Woodland:

- Community Christian Academy
- Cornerstone Christian Academy
- Holy Rosary Parish School
- Montessori Children's School House
- Woodland Adventist
- Woodland Christian Elementary School

Woodland Community College is also located within the City of Woodland.

1.9 HISTORICAL PROPERTIES

Woodland has a rich historic heritage and many significant historic buildings, districts, events and artifacts that reflect its past. These are symbols of Woodland's unique heritage and identity. Downtown Woodland in particular includes many historically significant buildings and is recognized as a National Register Historic District. To this day, the Downtown Woodland Historic District retains much of its historic appearance and function and is considered the heart and jewel of Woodland. The district has major examples of several architectural styles, including Italianate, Richardsonian Romanesque, Spanish Colonial Revival, Streamline, and several versions of the Second Renaissance Revival. The historic integrity of the district is high due to the concentration of resources, the proportion, size and importance of the contributing historic buildings, and the relative inconspicuousness of non-contributing buildings.

The Woodland Opera House and Yolo County Courthouse are included on the National Register of Historic Places. Other Downtown buildings on the National Register include the I.O.O.F. building, Porter building, Woodland Public Library, R.H. beamer House, Jackson Apartments, and Hotel Woodland. Outside Downtown, the Gibson Mansion Historical museum is also a City historic building and listed on the National Register. In addition, Woodland's historic neighborhoods offer a variety of historically and architecturally significant structures.

Awareness and appreciation of Woodland's historic resources will foster a greater enjoyment of the city and greater support for historic preservation efforts. Further, the historic Downtown is the City's center of shopping, dining, entertainment and employment.

To that end, Woodland's Historical Preservation Commission serves to assist the City and recommend to City Council the means to implement the City's Historical Landmarks, Districts and Resources Ordinance, Chapter 12A, of the Woodland Municipal Code. Chapter 12A was adopted to

preserve areas and specific structures and objects in the city that reflect elements of its cultural, social, economic, political and architectural history and to promote their use for the education and welfare of the residents of the city.

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SECTION 2.0: HAZARD IDENTIFICATION AND RISK ASSESSMENT

The City of Woodland identified hazards that affect the city and developed natural hazard profiles based upon the countywide risk assessment, past events and their impacts (see Figure 4).

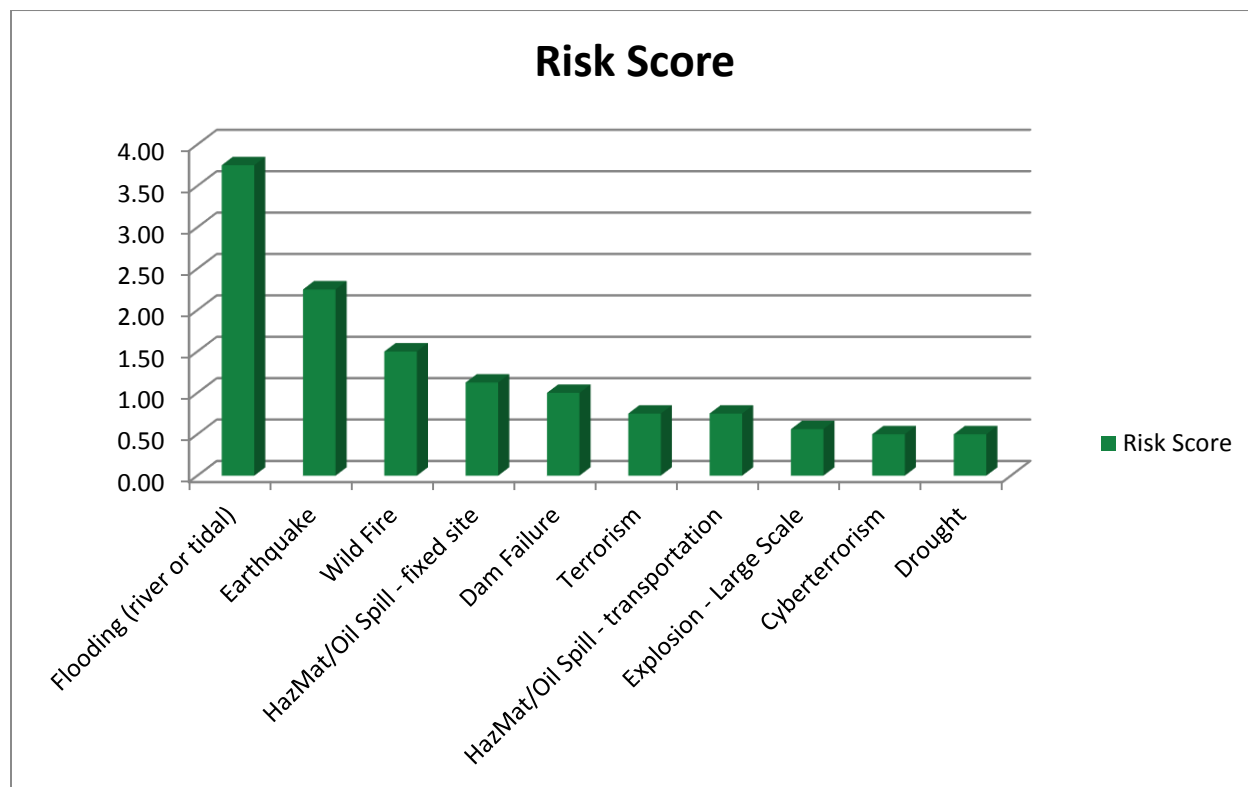


Figure 2: City of Woodland Risk Assessment

Definitions for the rankings and a detailed explanation of the hazards can be found in the Hazard Identification and Risk Assessment of the Yolo County Hazard Mitigation Base Plan.

2.1 HAZARDS

Of the hazards profiled in the Yolo County LHMP, those noted in the table are specific for the City as per the planning team. Following the table, there are description of significant hazards facing the City of Woodland. For the purposes of the Hazard Mitigation Plan, The City of Woodland defines climate change as a technological and human-caused hazard.

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Flooding	Highly Likely	Critical

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Drought	Likely	Critical
Dam Failure	Unlikely	Critical
Levee Failure	Occasional	Critical
Earthquake	Occasional	Critical
Land Subsidence	Occasional	Limited
Severe Weather - Fog	Likely	Critical
Severe Weather - Tornado	Occasional	Limited
Severe Weather – High Wind	Highly Likely	Critical
Severe Weather – Extreme Heat	Highly Likely	Critical
Severe Weather - Freeze	Occasional	Limited
Volcano	Highly Unlikely	Catastrophic
Wildfire	Highly Likely	Critical

Table 3: Probability and Extent for Natural Hazards in the City of Woodland

2.1.1 FLOODING

Typical flood hazards in Woodland generally consist of shallow sheet flooding from surface water runoff from large rainstorms with depths generally less than two feet. However, in larger storm events, there are significant areas within the City on the north and east sides that are also affected by flooding from Lower Cache Creek and/or the Yolo Bypass.

City streets, even those outside of the floodplain, are also subject to localized flooding during periods of heavy rainfall. Currently, the city's storm drain system is not adequately sized for the actual flows. Older parts of the city, particularly west of East Street, do not have a system of under-street storm drain pipes. Instead, runoff is conveyed through intersections in valley gutters, gutter culverts, or inverted siphons, and must travel long distances to reach a drain inlet. In these areas, when the capacity of drain inlets and pipes is exceeded, localized street flooding occurs and remains for three to four hours after rainfall has subsided.

The City Storm Drain system collects water through gutters, ditches, and catch basins, and conveys that water generally from west to east, by gravity, through canals and storm mains to the pump stations on East Main Street. From there it is pumped into a canal along the south side of the Cache Creek Settling Basin. From there it flows into the Yolo Bypass, Tule Canal, and the Sacramento River. There are several detention basins at various locations around the City that assist in dealing with peak storm flows. When the capacity of the system is exceeded, localized street flooding occurs until 3-4 hours after the rainfall subsides and the streets are again able to drain. While it may appear that the catch basin grates are blocked, the system is just overloaded and the excess water is "stored" in the gutters and on the street.

From the west of the City, the runoff area is small and does not pose a flood threat. From the south, Willow Slough floods towards the south; from the east, the Yolo Bypass would flood to a maximum elevation of 32 feet, which affects only a small portion of Woodland. Interior drainage and localized flooding is not expected to generate major flood damages.

The lands to the east of Woodland could potentially be subject to deep flooding from overflows from the Willow Slough Bypass or the Yolo Bypass, depending on the particular flood event or levee failure and the associated volume of overflow. The deep flooding could occur as a result of water ponding against levees of the Yolo Bypass and the Willow Slough Bypass. The proposed document that outlines the method of assessment for operation and maintenance of Reclamation District 2035 states those lands to the east of Woodland would be subject to 6.5 to 16 feet of inundation should the bypass levee fail.

Low-lying areas of the City of Woodland are subject to periodic flooding due to overflow from Cache Creek, from runoff originating in the western sector of the City, or from overland flow originating west of the City in a gently upward sloping area defined by the Maple Canal on the southwest and low divide on the north. Flooding from the creek results from heavy rain over the tributary drainage during the period from November through March. On rare occasions, melting snow in the high elevations of the basin could augment runoff from general rain.

Cache Creek and the Yolo Bypass will continue to be the primary flood hazards to the City of Woodland. The primary flood hazard within the project area would be from Cache Creek. The Army Corps of Engineers enlarged and extended the existing constructed levees along both banks of Cache Creek in the 1950's. The design flow for the levees is 30,000 cfs, which has approximately a 1 in 10 chance of occurring in any given year. Historically, the levee system has passed flows up to

34,000 cfs, a 1 in 20 chance flow, without failures. Without a new project, larger flows would continue to flood agricultural lands and would likely flood the City of Woodland.

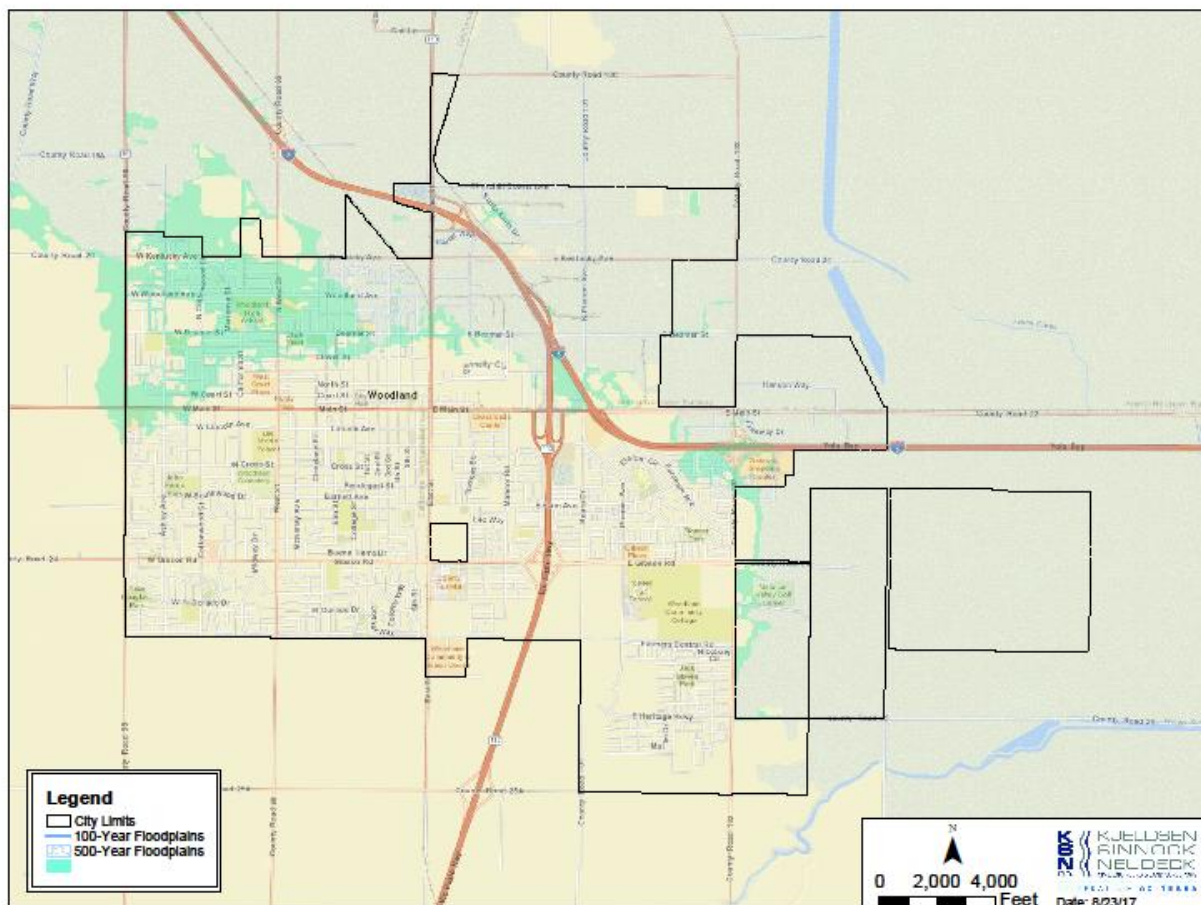


Figure 3: City of Woodland Floodplain

2.1.2 DAM FAILURE

In addition, areas in and around Woodland could potentially experience up to eight feet of flooding in the unlikely event of failure of the Indian Valley Dam, located on the North fork of Cache Creek. The Indian Valley Dam is owned by the Yolo County Flood Control & Water Conservation District, which maintains an Emergency Action Plan. The dam has a maximum permitted storage capacity of 300,600 acre-feet and maintains a 40,000 acre-foot flood storage capacity. The design flood discharge from the dam is 39,500 cfs. In the event of a dam failure, the potential inundation and front of the wave travel time will occur in approximately eight hours after dam failure. In addition to a severe earthquake, other potential events that could lead to dam failure or overtopping include major flood inflows, massive landslide or slippage, and piping (when water finds a path through the levee embankment) or erosion of the dam embankment. Flooding would occur within six to seven hours of dam failure.

2.1.3 LEVEE FAILURE

The major problems facing the Woodland area include deficient levees along the Yolo Bypass, Cache Creek, the Cache Creek Settling Basin, and the Willow Slough Bypass.

The out of bank flows and levee failures West of I-5 can be diverted northwest and southeast along the I-5 embankment from Cache Creek. These Southeast flows are directed into the City of Woodland and continue East by over topping I-5 and using the Beamer Underpass as a siphon under I-5. An additional example is that construction of the Cache Creek Settling Basin did not provide for returning flows from the south bank overflows from Cache Creek back to the Yolo Bypass. This results in large expanses of RD 2035 being put under more than eight feet of water along with I-5, for several months. This situation also subjects the City of Davis' wastewater treatment plant and the Yolo County landfill to being flooded.

2.1.4 EARTHQUAKE

GEOLOGY

Woodland is located in the Great Valley geomorphic province of California and consists of gently sloping to level alluvial plains. The geologic parent material within the region was formed from the erosion of mountain ranges to the east and geologic uplift along the western shore of the North American continent. Two hundred and forty-five million years ago, the Great Valley province began forming from sediment-laden runoff deposits. Eventually, the deposits accumulated to a depth of almost six miles, with large amounts of sediment continuing to be added until approximately 30 million years ago. These processes occurred beneath the sea, and as a result, the water captured in the pores of deeply buried rock is saline. The Great Valley area generally consists of Holocene alluvium or basin deposits, as well as quaternary Modesto and Riverbank formations, both of which consist of somewhat older alluvium. Earthquakes can occur anywhere in Woodland. The city lies along the eastern edge of the Coast Range-Sierran Block Boundary (CRSBB), where the Dunnigan Hills Fault is located (see Figure 4).

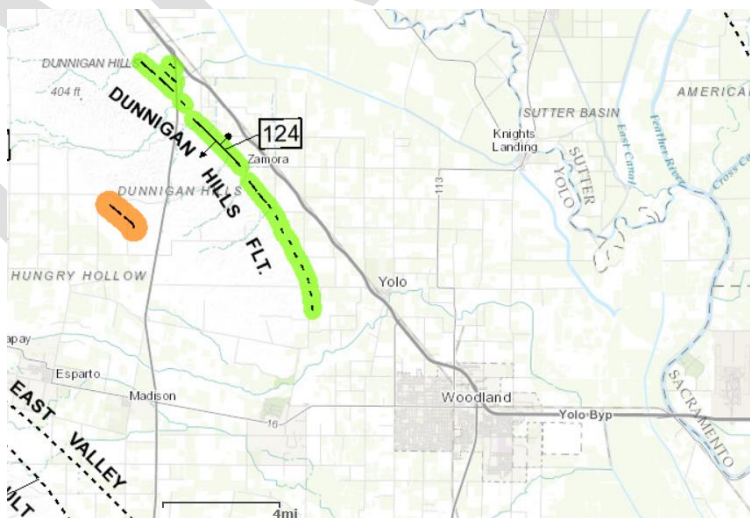


Figure 4: Fault Line near Woodland

A major earthquake originating along this fault line or from an unknown fault in the CRSBB could grind the local public infrastructure in Woodland to a halt. In 2016 a small 2.5 earthquake shook Woodland; the quake was centered seven miles west of the city in an area of the CRSBB where there are no known fault lines. The Midland Fault, located southwest of Davis, is another fault that could cause shaking for Woodland as had occurred after the 1892 Vacaville-Winters Earthquake.

Further away, the San Andreas Fault system is located to the west and the Western Sierra Fault system is located to the east of Woodland (see Yolo County HMP). Numerous quakes along these faults have been felt in Woodland, most recently during the Loma Prieta Earthquake in 1989, but Woodland suffered no significant damage.

2.1.5 LAND SUBSIDENCE

Land subsidence could essentially occur anywhere in Woodland. See the Yolo County HMP for maps of expansive soils and causes of land subsidence in Yolo County. Most of Woodland is located in an area of low expansive soils, though the southeastern side has much higher expansive soils. These areas are closer to agricultural fields where there is a higher instance of groundwater pumping, a primary cause of land subsidence. Land subsidence could have numerous impacts for Woodland, including the settling of homes and businesses as well as the shifting of railroad tracks that run through the city.

2.1.6 SEVERE WEATHER

HIGH WIND

High wind could occur anywhere in Woodland and could be compounded by atmospheric river events. High winds can fell trees, which can cause subsequent damages to cars and structures as well as critical infrastructure such as power lines and water mains throughout Woodland. The Watts-Woodland Airport located outside of Woodland is also susceptible to high winds, which can cause damages to aircraft and affect airport operations.

FOG

Fog can be prevalent throughout Woodland as it is located in the valley of Yolo County where fog is more apt to form. Impacts from fog can be compounded in Woodland due the presence of two major highways, Interstate 5 and State Route 113, which run through the City. The potential for serious accidents exist due to fog, which could result in injuries and fatalities to motorists and first responders.

TORNADO

A tornado could touch down anywhere in Woodland, and is documented as one of the top ten hazards that the city is at highest risk from (see city risk assessment). Though tornados in the Central Valley of California are often rare and of low intensity (EF-0 or EF-1), the potential exists for an EF-2 tornado to touch down in Woodland as it did in Sacramento in 1978. While unlikely, impacts from such a tornado could be extensive depending on where the tornado touches down and how long it travels. Roofs of structures could be significantly damaged, trees could be knocked over, and cars could be overturned. A less intense EF-0 or EF-1 tornado could cause flying debris

and damage to fences. Tornadoes can also produce hail, which can be damaging to cars and buildings.

EXTREME HEAT

Extreme heat can occur at any location in Woodland due to its location in the valley of Yolo County. Temperatures can feel warmer in the city due to the widespread presence of concrete and asphalt, which stores heat longer. Heat waves can cause power outages and can sicken people who are exposed to high temperatures too long, particularly infants the elderly.

FREEZE

Freezing temperatures can occur at any location in Woodland. Prolonged exposure to the cold can cause frostbite or hypothermia and can become life-threatening. Infants and the elderly are most susceptible. Pipes may freeze and burst in homes or buildings that are poorly insulated or without heat. Extreme cold can disrupt or impair communications facilities.

2.1.7 VOLCANO

Woodland is not located close to any active volcanoes where there is the threat of a lahar flow. Woodland could be impacted by ash fall, however, if there were to occur a significant eruption of any of the active volcanoes located throughout the state. Particular areas of concern include the Mt. Shasta, Lassen Volcanic Center, Medicine Lake, and the Clear Lake/Mt. Konocti Volcanic Field. People susceptible to respiratory illnesses would be most impacted by ash fall.

2.1.8 WILDFIRE

Woodland does not have a wildland urban interface similar to those in the western, more mountainous areas of the county where large wildfires are more apt to occur. As the city is not heavily forested, Woodland would primarily experience grass fires that could threaten homes and infrastructure. Grass fires in Woodland along Interstate 5 and State Route 113 could cause traffic issues as well.

The California Department of forestry and fire Protection (CalFire) has mapped fire threat potential throughout California. CalFire ranks fire threat according to the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include little or no fire threat, moderate, high, and very high fire threat. There are no State Responsibility Areas or Very High fire Hazard Severity Zones located within the Woodland Planning Area or its vicinity. While the majority of the Planning Area is identified to have little to no wildland fire threat, some areas along CR 102 are identified as Local Responsibility Areas with a moderate fire threat. However, it is likely that wildfire danger will increase with climate change. The following figure shows existing fire hazard severity zones within the City and its vicinity.



Woodland relies primarily on the Sacramento River for drinking water supply. The availability of water in the Sacramento River is susceptible to drought. Prolonged drought conditions will result in a curtailment in water rights in the Sacramento River, which will cause a shortfall in Sacramento River water to Woodland. ASR wells and backup native groundwater wells would be utilized during a drought.

The City of Woodland is not a risk to agricultural pests and diseases, pandemic/epidemic, ship and airplane accidents, power/utility failure, and communications/IT failure.

Releases, leaks, or disposal of chemical compounds, such as petroleum hydrocarbons, on or below the ground surface, can lead to contamination of underlying soil and groundwater. Disturbance of a previously contaminated area through grading or excavation operations could expose the public to health hazards from physical contact with contaminated materials or hazardous vapors. Improper handling or storage of contaminated soil and groundwater can further expose the public to these hazards, or potentially spread contamination through surface water runoff or air-borne dust.

Areas with known or suspected release of hazardous materials to soil and groundwater, and where current clean up activities monitored by the State Water quality Control board or the California Department of Toxic Substances are active, are monitored. The sites are primarily located in the industrial area and along Main Street and East Street. Most of the sites in Woodland are Leaking underground Storage Tanks (LuSTs), and many of the sites are automobile-related, such as gas stations or auto repair shops. Woodland also currently has sites undergoing remediation for contamination with hazardous materials. Some contaminated sites are on vacant parcels or properties with the potential to re- develop. Contamination does not render these sites unusable, but may require time and funding for cleanup, and in some cases, may limit allowable land uses.

2.2.2 TRANSPORTATION ACCIDENTS

VEHICLE ACCIDENTS

Two major highways pass through Woodland, the most prominent being Interstate 5. The potential exists for a major vehicle accident to occur this highway, resulting in a mass casualty and/or hazmat incident.

TRAIN ACCIDENTS

Several rail lines pass through Woodland. The California Northern Railroad operates freight traffic through the center of downtown Woodland, and the Sierra Northern Railroad operates freight traffic through the industrial area of Woodland.

2.2.3 TERRORISM

Terrorism in Woodland can occur in many forms, including from a car bomb to an incident at a local downtown festival.

2.2.4 CIVIL DISTURBANCE

Civil disturbance in Woodland can occur as a result of numerous different activities including from a police shooting to a general protest.

2.2.5 URBAN CONFLAGRATION

Urban and wildland fire hazards can threaten life and property in Woodland. Policies in the General Plan seek to ensure that new development is constructed to minimize potential fire hazards and to provide public education concerning fire prevention.

Urban fires are fires that begin in buildings in urban centers. They are typically localized, but have the potential to spread to an adjoining building, especially in areas where homes and/or business facilities are clustered close together. Structural fire risk in Woodland is greatest in older structures and neighborhoods built before modern building codes for fire safety and building systems were in place.

In 1892, a fire broke out in the rear of a fruit store on Main Street in Woodland. Fanned by strong north winds, the conflagration spread to several blocks before it was under control. A large section of the central business area was destroyed, including the historic opera house, resulting in over \$200,000 in damages. One citizen was killed.

Woodland engineering standards require a minimum flow of water for fire protection in accordance with Woodland Fire Department, California fire Code, and Insurance Services Office standards.

Adequate emergency vehicle access to buildings is important for effective public safety service and emergency response. Emergency access is regulated by the California fire Code. under the current fire Code, all portions of a building must be located within 150 feet of a serviceable fire access road. In some instances, the fire Marshal can make an exception to this rule, such as when a building is equipped with an approved automatic sprinkler system.

2.2.6 CLIMATE CHANGE

The City of Woodland is actively engaged regarding the issues of sustainability and climate change. Looking to the future, Woodland seeks to establish itself as a leader in sustainability practices attuned to reducing greenhouse gas emissions and increasing resiliency to the effects of climate change.

The City advocates responsible growth while seeking to conserve energy, water and other resources; reduce greenhouse gas emissions; promote infill, green and net-zero energy development; and build community resiliency to the effects of climate change. Policies related to the issues of sustainability and climate change can be found in the General Plan.

In addition, the city's Climate Action Plan (CAP) outlines Woodland's overall strategy to reduce greenhouse gas emissions. Development of the CAP occurred concurrently with the planning process for the General Plan to ensure that the two documents support one another.

2.3 PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

The City of Woodland participates in the NFIP and continues to enforce the compliance with the NFIP through their Flood Plain Management Ordinance. However, as in much of California, FEMA is working with local governments to refine and remap the floodplains. These changes to flood mapping and zoning in Woodland may result in additional properties needing to be insured and evaluated in future plans.

As of 2017 there are zero repetitive loss properties and two severe repetitive loss properties in the City of Woodland. Total SRL payouts are \$219,546.40. The City of Woodland does not participate in the Community Rating System.

SECTION 3.0 MITIGATION STRATEGY

3.1 CAPABILITY ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capability assessment is divided into five sections: regulatory, administrative and technical, fiscal, outreach and partnerships, and other mitigation efforts.

3.1.1 REGULATORY CAPABILITY

The legal and regulatory capabilities of each jurisdiction are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of each jurisdiction. Examples of legal and/or regulatory capabilities can include: a jurisdiction's building codes, zoning ordinances, subdivision ordinances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

City of Woodland Regulatory and Planning Capabilities

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Building code	√	√	√	√	√	√
Zoning ordinance	√	√	√	√	√	√
Subdivision ordinance or regulations	√	√	√	√	√	
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	√	√	√	√	√	√
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	√	√	√	√	√	√
Site plan review requirements	√	√	√	√	√	√
General or comprehensive plan	√	√	√	√	√	
A capital improvements plan	√	√	√		√	√
An economic development plan	√	√	√	√	√	√
An emergency response plan	√	√	√	√	√	√
A post-disaster recovery plan				√		√
A post-disaster recovery ordinance						

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Real estate disclosure requirements	√	√	√	√	√	
Habitat Management Plan	√	√	√	√	√	
Master Drainage, Sewer, Water, & Reclaimed Water	√	√	√	√	√	√

Source: Steering Committee

AB 156 (Laird). Requires DWR and the board to adopt a schedule for mapping flood risk areas within the CentralValley. Sets out requirements for reports on the flood control system to be prepared by DWR and the board, including levee flood zone protection maps to be prepared by DWR by December 31, 2008. Mandates DWR to provide yearly notices to owners of property within a levee protection zone, beginning September 1, 2010. The same requirements are also enacted by Ab 5.

AB 162 (Wolk). Requires cities and counties to amend the land use, conservation, safety, and housing elements of their general plans to address flood-related matters. These amendments are required to be made by the next scheduled revision of the housing element after January 1, 2009.

SB 379 As California confronts mounting climate change impacts, local governments are now required, in accordance with Senate bill 379, Land use: General Plan: Safety Element (Jackson) to include a climate change vulnerability assessment, measures to address vulnerabilities, and comprehensive hazard mitigation and emergency response strategy. Impacts that Woodland may face as a result of climate change include increased flooding, wildfires, and heat waves.

Emergency Operations Plan The California Emergency Services Act requires cities to prepare and maintain an Emergency Plan for natural, manmade, or war-caused emergencies that result in conditions of disaster or in extreme peril to life. The Woodland Emergency Operations Plan addresses the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents and national security emergencies, including acts of terrorism. The plan does not apply to normal day-to-day emergencies, but rather focuses on large-scale disasters that pose major threats to life, property and the environment, and require unusual emergency responses.

3.1.2 ADMINISTRATIVE AND TECHNICAL CAPABILITY

The **Administrative and Technical Capability** table identifies the city personnel responsible for activities related to mitigation and loss prevention in the City of Woodland. Many positions are full time and/or filled by the same person. A summary of technical resources follows.

City of Woodland Personnel Capabilities

Personnel Resources	Department/Position
Engineer and/or Planner with knowledge of land development/land management practices	Community Development; Public Works Department
Professional trained in construction practices related to buildings and/or infrastructure	Community Development / Building Official and Senior Building Inspector, Public Works Department
Full time Building Official	Community Development / Building Official
Floodplain Manager	Community Development / Building Official and City Engineer
Emergency Manager	City Manager's Office, Fire Department
Grant Writer	Various Departments
Other Personnel Resources	Various Departments

Source: Steering Committee

3.1.3 FISCAL CAPABILITY

The **Fiscal Capability** table shows specific financial and budgetary tools available to the jurisdictions such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

City of Woodland Available Financial Tools and Resources

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Community Development Block Grants	√	√	√	√	√*	
Capital improvements project funding	√	√	√	√	√	
Authority to levy taxes for specific purposes	√	√	√	√	√**	
Fees for water, sewer, gas, or electric service	√	√	√	√	√	
Impact fees for homebuyers or developers for new developments/homes	√	√	√	√	√	
Incur debt through general obligation bonds	√	√	√	√	√**	
Incur debt through special tax and revenue bonds	√	√	√	√	√**	

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Incur debt through private activity bonds	√	√	√	√	√**	
Withhold spending in hazard-prone areas	√	√	√	√	√	

* Subject to grant from State

** Subject to voter approval

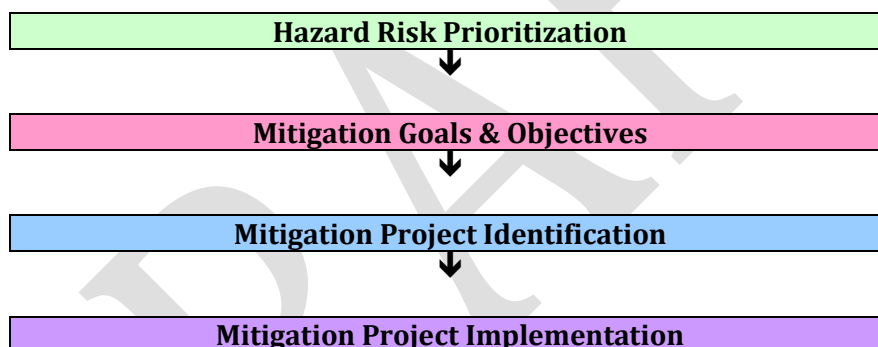
Source: Steering Committee

3.1.4 COMMUNITY OUTREACH

The City currently has several community outreach and public education programs in the areas of Fire and Crime prevention through both the Fire and Police Departments.

3.2 MITIGATION GOALS

The information developed for the risk assessment was used as the primary basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines explaining what each jurisdiction wants to achieve in terms of hazard and loss prevention.



Goal statements are typically long-range, policy-oriented statements representing jurisdiction-wide visions. Objectives are statements that detail how each jurisdiction's goals will be achieved, and typically define strategies or implementation steps to attain identified goals. Other important inputs to the development of jurisdiction-level goals and objectives include performing reviews of existing local plans, policy documents, and regulations for consistency and complementary goals, as well as soliciting input from the public.

The following represents overarching strategic goals associated with the identification and eventual implementation of appropriate and meaningful hazard mitigation efforts in relation to prioritized hazards and threats confronting the Yolo Operational Area. These goals form the basis for specific supporting process objectives and are shown from the highest priority, at the top of the list, to those of lesser importance.

The establishment of hazard mitigation goals represents both individual and collective strategies that have been mutually agreed upon by the Steering Committee, and have not changed with the 2018 HMP update. Eventually, these goals will be adopted by each participating jurisdiction and

public agency as the guiding policy behind local hazard mitigation efforts, in conjunction with other associated principles.

Goal 1:	Protection of life during and after the occurrence of disasters from identified hazards;
Goal 2:	Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
Goal 3:	Protection of emergency response capability
Goal 4:	Protection of developed property, homes and businesses, industry, educational opportunities and the cultural fabric by combining hazard loss reduction with the community's environmental, social and economic needs
Goal 5:	Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives
Goal 6:	Preserving or restoring natural mitigation values such as flood plains.
Goal 7:	Protection of natural resources and the environment.

Planning Process Objectives

The following objectives are meant to serve as a metric upon which the Yolo Operational Area Hazard Mitigation Plan can be evaluated. Meeting these objectives assures the Multi Hazard Mitigation Plan as a functional document that identifies short-and long-term strategies, and describes each measure including:

Objective 1:	Identification of individuals, agencies or organizations responsible for project implementation.
Objective 2:	Projecting a realistic and doable time frame for project implementation.
Objective 3:	Explanation of how the project will be financed including the conditions for financing and implementation as information is available.
Objective 4:	Identification of alternative measures, should financing not be available.
Objective 5:	Maintain consistent support for the implementation of existing hazard mitigation planning goals and objectives for the operational area.
Objective 6:	Base mitigation strategies on hazards as identified within the Yolo OA Risk Assessment.

Objective 7:	Provide significant potential for the effective reduction of damage to public and/or private property, or to costs associated with local, state, and federal recovery from future potential impacts.
Objective 8:	Establish and maintain a benchmark for identifying the most practical, cost effective, socially acceptable, and environmentally sound mitigation solution after consideration of available alternatives.
Objective 9:	Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential for loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering.
Objective 10:	Meet applicable permit requirements.
Objective 11:	Develop mitigation standards for development in hazardous areas.
Objective 12:	Contribute to both the short-and long-term solution to the hazard vulnerability risk problem.
Objective 13:	Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation.
Objective 14:	Have manageable maintenance and modification costs.
Objective 15:	When feasible, be designed to accomplish multiple objectives including improvement of life safety, damage reduction, restoration of essential services, protection of critical infrastructure, security of economic development, recovery, and environmental sustainability.
Objective 16:	Whenever feasible, use existing resources, agencies and programs to implement the project.
Objective 17:	Include regional hazard mitigation concerns and strategies

3.3 MITIGATION PROJECTS

Mitigation projects were selected for each hazard and for each jurisdiction based off the hazard risk assessment. The projects are supported by the mitigation goals and objectives, and are ranked using the following criteria; approximate cost, timeframe of completion, whether the project requires regulatory action, and an assumption as to whether or not the project would be subject to CEQA or federal EIR requirements. Funding sources are identified for all projects.

The Lower Cache Creek Feasibility Study is an ongoing collaborative effort between the Army Corps of Engineers, Department of Water Resources, and the City of Woodland. The Study has identified a project to provide flood protection to Woodland from Cache Creek. Construction of the planned

flood protection project would provide 200-year flood protection for all of Woodland from Cache Creek.

The 2017 Central Valley Flood Protection Plan includes an evaluation of flood mitigation measures to protect Woodland from flooding from the Yolo Bypass West Levee. Construction of either the transitory storage project or upgrading the Yolo Bypass West Levee to current levee standards would protect Woodland from flooding from the east.

The construction of additional ASR wells would provide added protection to Woodland from future droughts. The ASR wells allow for the storage of excess available treated drinking water in winter months for use in summer months. The ASR well would be available to supply additional drinking water at treated Sacramento River water standards in drought periods.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
All Hazards Public Awareness and Disaster Preparedness	All / Yolo County Office of Emergency Services (OES)	Existing (2005)	Yolo County OES General Fund	Ongoing	Important element of CRS program
Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	Yolo County and the Cities of Davis, West Sacramento, Winters, and Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Community Warning System	All / Yolo County OES	COMPLETE D (2005)	Yolo County OES General Fund	Completed	These systems are continually updated due to changing technology
DROUGHT					
Drought Contingency Plan	All / Yolo County OES	Existing (2013)	PDM, HMGP	2018	Ongoing
Drought Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
EARTHQUAKE					
Non-Structural Mitigation Outreach Program	All / Yolo County Community Services Department	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
FLOODING/LEVEE FAILURE					
Cache Creek Flooding	Woodland / Public Works Division, Yolo County / Yolo County OES	Existing (2005)	DWR Grants	Ongoing	Ongoing
Promote Flood Insurance (Cont'd participation in the NFIP)	Yolo County and the Cities of Davis, West Sacramento, Winters, Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Wastewater Treatment Plant through levee pipe removal	Woodland	New			
SEVERE WEATHER					
Winter Weather Preparedness Campaign	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
WILDFIRE					
Fuel Reduction in Local Responsibility Areas	All / Yolo County OES	Existing (2013)	CalFire Grants, Fire Safe Council Grants, HMGP	Ongoing	Ongoing
Downtown Infrastructure Upgrades	Woodland	New			
Wildfire Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change

SECTION 4.0: PLAN REVIEW, EVALUATION AND IMPLEMENTATION

The strategies presented are deemed appropriate and effective by recommendation of the City of Woodland.

4.1 PLAN ADOPTION

Upon submission to the California Office of Emergency Services (CalOES) for review, and subsequent approval by the Federal Emergency Management Agency (FEMA), the Yolo County Hazard Mitigation Plan will be presented to local government for formal adoption. As appropriate, the adopted plan and accompanying City of Woodland Community Profile will then be incorporated into local general plans for integration into organizational policy.

4.2 PLAN MONITORING

The process of hazard mitigation does not end with the completion, approval, and adoption of the Yolo County Hazard Mitigation Plan and the City of Woodland Community Profile. Within the lifespan of these documents (five years), local government along with community-based organizations will ensure that the mitigation goals and strategies identified are monitored, that plan administration will continue under a collaborative and cooperative umbrella, and that the document itself will be properly maintained.

The Yolo County Office of Emergency Services, as lead coordination agency for hazard mitigation planning within the Yolo OA, and will assist and support the ongoing collaborative efforts of the City of Woodland, through the established Hazard Mitigation Steering Committee. Specific plan maintenance activities by the Yolo County Office of Emergency Services and the City of Woodland may include:

- Distribution of the HMP and Community Profile to all interested parties, including both written and digital formats
- Monitoring of the City of Woodland mitigation project activities and dissemination of status reports
- Generation of reports relative to plan status, project management, and revision updates to executive leadership
- Preparations for plan eventual revision and updating

4.3 PLAN EVALUATION

Upon approval and adoption by the City of Woodland, the prioritized mitigation strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

The mitigation strategies represented and adopted within this plan are recommendations only, and must be approved and funded in order to be implemented as official mitigation solutions. Ultimately, it is the responsibility of jurisdictional and agency officials within the Yolo Operational Area to undertake project implementation based upon identified mitigation strategies, funding availability, and local need when it arises. The Yolo County Office of Emergency Services will meet with the Hazard Mitigation Steering Committee to evaluate the plan after each update meeting.

4.4 PLAN UPDATE

During the five year update cycle, the Yolo County Office of Emergency Services will hold tri-annual update meetings with the Hazard Mitigation Steering Committee and local stakeholders to discuss revisions to the plan. The Yolo County Office of Emergency Services will continue to hold public meetings after the first and third update meetings annually, and will continue to invite public participation in the update process via updated public surveys.

DRAFT

APPENDIX A: ADOPTION LETTER

DRAFT

APPENDIX G: COMMUNITY PROFILE – CITY OF WEST SACRAMENTO

DRAFT



This document is a support annex to the
Yolo County Multijurisdictional Hazard
Mitigation Plan

City of West Sacramento Community Profile

Version 1.0

December 2018



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ACKNOWLEDGEMENTS

The City of West Sacramento would like to thank those Yolo County Operational Area collaborators and partners who participated in the planning and development of this document.

The official Yolo County Operational Area Hazard Mitigation Steering Committee provided the oversight and dedication to this project that was required and without their commitment; this project would not be possible.

As with any working plan, this document represents planning strategies and guidance as understood as of the date of this plan's release. This plan identifies natural hazards and risks and identifies the hazard mitigation strategy to reduce vulnerability and make the City of West Sacramento more disaster resistant and sustainable.

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SECTION 1.0: INTRODUCTION

The City of West Sacramento Community Profile has been prepared in conjunction with the Yolo County Operational Area Hazard Multi-Jurisdictional Mitigation Plan (HMP), establishing an inter-jurisdictional process for the development and implementation of effective hazard mitigation strategies in association with identified hazards that pose real or potential threats to the city of West Sacramento.

1.1 HISTORY

Over four thousand years ago, the Patwin Indians were the first inhabitants of the area now known as the City of West Sacramento. These Native Americans established villages on the west bank of the Sacramento River and their members often numbered in the hundreds. The Patwin Indians took advantage of the abundant natural resources offered by the land and water that surrounded them. They hunted and fished; they also crafted baskets, fishing nets, boats, and rafts from willows, tough grasses, and vines. All of their needs were provided by their environment.

The tranquil lifestyle of the Patwin Indians changed dramatically with the introduction of European settlers during the 19th century. Many hunters and trappers were attracted to the Sacramento Valley by the abundance of fur-bearing animals. Tragically, with the arrival of these European explorers came diseases which decimated the Patwin Indian population. Malaria and smallpox epidemics swept throughout the Patwin and other surrounding Native American villages in 1833 and 1837. By the time the epidemics had been contained, the Native American population in the Sacramento Valley had dropped from 60,000 to 20,000 people. Over time, more and more settlers came to the valley. The few remaining Patwin Indians either became employed or enslaved by the Euro American settlers, thus bringing to a close the Patwin cultural lifestyle.

In 1844, Jan Lows de Swart, a Flemish traveler, was the first Euro-American to permanently settle in the area of West Sacramento. Jan, who came to be known as John Schwartz, built a shack along the west bank of the Sacramento River six miles south of the confluence with the American River. In 1845, Schwartz acquired a land grant from the Mexican Governor Manuel for an area of land one mile wide and twenty miles long. He named his newly acquired property "Rancho Nueva Flandria" after his native homeland. Shortly after settling here, John, with the help of his brother George, established a salmon fishery along the river. Besides drying and pickling the salmon, they also engaged in raising livestock and cultivating potatoes and melons. Little did John and his brother realize that within a few years, the great gold rush of 1848 would begin in California. The announcement of the discovery of gold at Sutter's Mill brought thousands of miners to the area.

In 1846, an adventuresome jack-of-all-trades named James McDowell bought 600 acres of "Rancho Nueva Flandria" from John Schwartz. With his wife, Margaret, and their three daughters, McDowell settled in the area we know today as Broderick. The McDowell family was not untouched by the violence that often marked the tumultuous times of the Gold Rush. In May of 1849, James McDowell was shot and killed in a barroom brawl that he had supposedly instigated. With the loss of the sole supporter of the McDowell family, Margaret had to find the means to support herself and her children. At first, Margaret McDowell took boarders into her home as a means of gaining some income, but she

soon realized that this was not enough. It became apparent that the land she owned was her most valuable asset. In October of 1849, Margaret hired a land surveyor to map out 160 acres, which was subsequently divided into forty one blocks. She sold individual lots within this platted area which she named the Town of Washington. The first lot was sold to August W. Kaye for \$500. During the ten years following its creation, the rural Town of Washington experienced a significant increase in business development and shipping activity. One of the earliest companies to be established in the town was the California Steam Navigation Company, which was attracted to the area in 1859 by the close proximity of the Sacramento River. Other economic enterprises that marked early Washington included hotels, saloons, and restaurants catering to the needs of weary travelers. Many travelers making the harsh journey through the marshlands on their way to Sacramento welcomed the rest stop at the Town of Washington.

Other enterprises that found success in the early days of West Sacramento were the fishing and farming industries. Fishermen saw the profitable potential in salmon, sturgeon, catfish, eel, crayfish, and clams. The river community was thriving, supplying fish markets not only in Sacramento, but in San Francisco as well. In addition, the rich soil of the valley produced abundant crops of corn, melons, cucumbers, and sweet potatoes. The dairy industry also established roots in West Sacramento around this time. One of the area's most well-known dairy farmers was Mike Bryte. Bryte came to California in 1849 to try his hand at gold mining. Although he did not make a fortune in gold, he bought a dairy farm in 1853 which was very successful. When the California Steam Navigation Company came to Washington, Bryte used the steamships to carry his dairy products to regional markets. Profits from this allowed Bryte to expand his holdings. By 1879, he owned 1,500 acres of land, raised 150 cows and 100 young stock, and farmed 2,500 acres in Sacramento County. Mike Bryte's status in the community was marked by his election to the Yolo County Board of Supervisors and later as sheriff. During the 20th century, Mike Bryte's property was subdivided and became known as the community of Bryte.

With time, the area continued to grow, prosper, and develop. The Town of Washington was renamed Broderick in honor of U. S. Senator David D. Broderick. After 1900, the three communities known as Bryte, Broderick, and West Sacramento were cumulatively known as "East Yolo." From 1900 to 1920, the population of East Yolo doubled from 1,398 to 2,638. These communities are the foundation on which the current City of West Sacramento is built. In June 1963, the Port of Sacramento was opened to deep sea traffic with the completion of the Deep Water Ship Channel. The project had been authorized by Congress in 1946 and construction commenced in 1949. The City of West Sacramento was officially incorporated as a city in 1987. Although the City continues to change and grow even today, its roots are deeply embedded in the community spirit of the past.

1.2 OVERVIEW

West Sacramento is a vibrant, innovative and business friendly community located just across the beautiful Sacramento River from California's capital city. The city's redevelopment, growth and increasingly diverse economy are inspired by a community personality and energy all its own. The City maintains a business climate that encourages new business formation and growth. Businesses investing in West Sacramento recognize its many advantages:

- Strategic location within easy reach of West Coast markets and the Pacific Rim
- Comprehensive transportation network including the Port of West Sacramento, air, highway and rail
- Favorable California tax credits in the West Sacramento Enterprise Zone
- Affordable, vacant land and housing communities
- Proximity to University of California, Davis
- Highly-skilled, regional labor force
- Higher education and improved K-12 education system
- Riverfront recreation and regional entertainment destinations

The official elevation of West Sacramento is 20 feet and the total land area within the city limits is 22.8 feet. See Figure 1 for a map of the City of West Sacramento.

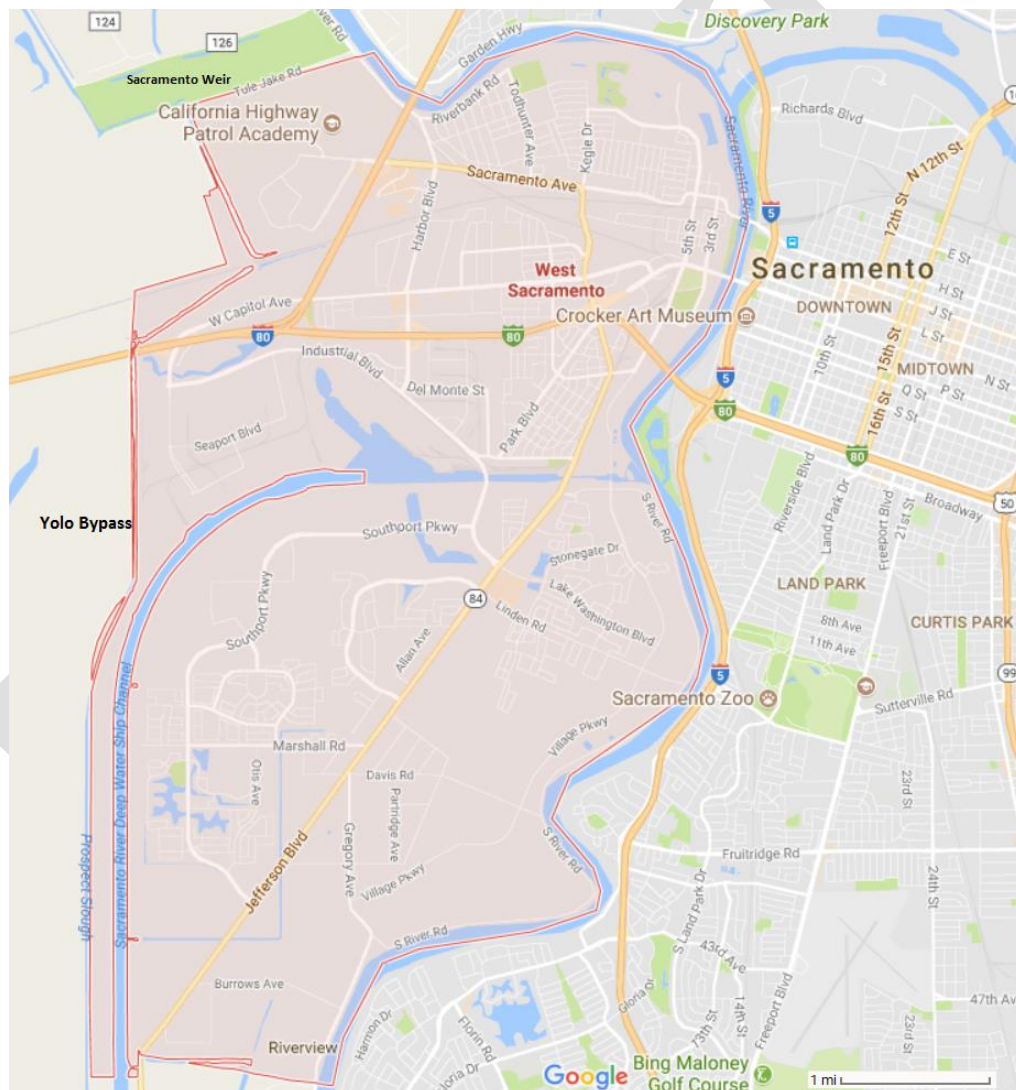


Figure 1: Map of the City of West Sacramento

1.3 NEW DEVELOPMENT

There have been several new development projects within the City of West Sacramento since the last hazard mitigation planning effort in 2013.

Promenade (Riverchase)

GBD Promenade Developments, LP received approval on July 21, 2016 from the Planning Commission of a major modification to a previously approved Vesting Tentative Map and Planned Development. The project consists of subdividing 18.3 acres of vacant land into 222 single family lots with 26 lettered lots that include some open space areas. A previously approved conditional use permit was granted in 2014 by the Planning Commission to allow single family construction in a multifamily zone. The project is located at 3151 Southport Parkway in Southport Business Park. House plans are currently under review by the Planning Department.

Bridge District Smart Growth Investors Design Review

Smart Growth Investors submitted an application for design review for their phase 2 apartments located at 980 and 974 Central Street. The phase 2 apartment development proposes 55 units in a massing of 2-4 stories of residential above parking. The majority of the units will be studio or 1 bedroom apartments, with the smallest units being 357 square feet. The 2 story portion of the building is located directly adjacent to the single family townhomes while the 4 story portion is located on the northern half of the lot along Bridge Street. The design includes an interior courtyard and balconies along Central and Bridge Street. The materials include brick veneer, dark grey/black shingle cladding, as well as grey and white plaster.

Alura at Washington Square Tentative Map

Alura Partners LLC is proposing a minor modification to an existing tentative subdivision map that divides six lots totaling 2.74 acres into 68 single family lots. The applicant has removed two single family units and the proposed 3,500 square foot commercial facility from the original design. The project is located in the Washington Specific Plan area at 412-420 6th Street.

Riveredge Apartments

Bridge District Riverfront LLC submitted an application for design review for a mixed use residential/retail building located along the waterfront in the Bridge District at the southeast corner of Riverfront Street and Ballpark Drive. The proposed design is 5 stories in height and would contain 273 residential units and 16,271 square feet of retail space to be wrapped around a 5-story, 447 space parking garage. The design includes linear retail frontage along the entire length of Riverfront Street and the facade will include brick, metal, light grey stucco, large loft windows, and large balconies.

Smart Growth Investors Phase II Single Family Homes

Smart Growth Investors II submitted an application for a Tentative Map and Design Review for a 21-lot single family home development in the Bridge District Specific Plan Area. The homes are a combination of two and three bedrooms with modern style elevations. The façade features stucco siding (white and gray combination) and a mixture of grays and two shades of browns for either accent pieces or railings. All 21 units will be three stories in height overall. The vehicular access for each 2-car garage will be accessed from the rear loaded alleys as art of the first floor of each unit. The square footage of the units range from 1,505 sq. ft. (along Central Street) to 2,227 sq. ft. along Riverfront Street. Each unit features a terrace either facing Central/Riverfront Streets or an internal greenway. The project site is situated on ±.86 acres which is a portion of a 1.56 acre area that is comprised of four lots lot in the Bridge District Specific Plan area. The project encompasses four

address; 978 and a portion of 972 along Riverfront Street on the east side and 981 and a portion of 975 on the west side of the project site (APN's 058-330-046, 047, 048 and 049).

Myer Ranch Subdivision

Evergreen Communities submitted an application for a tentative subdivision map on a 15.7 acre site located east of Jefferson Boulevard and south of Perkins Road in the Southport area of West Sacramento. The project site includes sixteen individual lots that were created as part of an old subdivision map that was recorded in 1913. The project will reconfigure the lots to create sixteen new lots, each 0.98 acre in size, for the development of ranchette single family homes. All of the lots will be served by public water and sewer.

1.4 DEMOGRAPHICS

This section summarizes historical population trends in the city of West Sacramento. Analyzing past trends can provide important insight about future population growth. Population statistics are from SACOG Population and Housing Estimates, the State of California Department of Finance Population Estimates, the 2000 and 2010 U.S. Census, the 2013 5-year American Community Survey and 2007 California Department of Finance (DOF) estimates.

The West Sacramento area experienced its most dramatic growth during the 1950s, as population more than doubled from about 11,900 to over 25,000. Since 2000 (2000 to 2015), the city's population grew by more than 62 percent, from 31,615 to 51,272. Overall, West Sacramento's population grew nearly five-fold since 1950 (11,906 residents in 1950 to 51,272 residents in 2015). Population growth in the city lagged behind Yolo County and the Sacramento-Yolo Consolidated Metropolitan Statistical Area (CMSA) for the following time periods: 1970-1980, 1980-1990, and 1990-2000. However, since 2000, the city's population grew faster than Yolo County and the Sacramento-Yolo CMSA (60.8 percent in the city, 22.6 percent in the county, and 5.7 percent in the Sacramento-Yolo CMSA).

Southport is projected to include approximately 12,200 more housing units at buildout, suggesting that this area of West Sacramento will absorb a large portion of the city's future growth.

The West Sacramento area experienced its most dramatic growth during the 1950s, as the population more than doubled, averaging an annual growth rate of 11.0 percent. The area's population rose to almost 27,400 in 1970, and then declined to about 24,000 by 1975. It took until 1990, when the population reached 28,900, for the area to exceed its 1970 population. The U.S. Census Bureau reported a 2000 population of 31,615, an increase of 9.4 percent since 1990. Since 2000 (2000 to 2007), the city's population has increased by more than 62.2 percent to 51,272 residents in 2015.

1.4.1 POPULATION CHARACTERISTICS

Between 2000 and 2010, the age distribution of city residents included a majority of residents being working age (18 to 59 years old), which is important from a labor force perspective.

- Nearly half (46.4 percent) of West Sacramento households in 2010 were married couples and 34.2 percent of households included children.
- The educational attainment of West Sacramento residents suggests a largely "working class" community, with a majority (75.9 percent) of the population having less than a bachelor's degree in 2010. Yolo County had only 62.2 percent of residents in this group.
- In 2000, Yolo County's median household income was 30 percent higher than the median household income in West Sacramento, which corresponds to the educational attainment of

city versus county residents. As of 2013, West Sacramento has a higher median household income than Yolo County.

- West Sacramento experienced a 37.8 percent growth in real income from 2000 to 2013, while growth in real income for Yolo County was a mere 1.4 percent.
- 75.7 percent of residents in West Sacramento had a commute of less than 30 minutes in 2013. The average commute time for West Sacramento residents in 2013 was 22.6 and was 21.6 in Yolo County.

1.4.2 POPULATION PROJECTIONS

According to SACOG, West Sacramento's population is projected to increase by 74 percent from 2014 to 2035, to more than 88,600 residents by 2035.

- West Sacramento is projected to account for more than half (53 percent) of projected growth in Yolo County from 2014 to 2035.

1.4.3 DEVELOPMENT TRENDS

According to the General Plan Background report in 2015 on Demographics and Economic Conditions, the growth between 2000 and 2007 for the West Sacramento retail, office, and industrial submarket grew by 22.1 percent, with the office market experiencing the largest increase. However, at a 19.2 percent vacancy rate (compared to 11.8 percent for the Sacramento regional market), the office market is over-supplied while the retail and industrial markets appear under-supplied with very-low- to low-vacancy rates (1.4 percent retail and 5.8 percent industrial vacancy rates compared to 6.1 percent retail and 8.4 percent industrial vacancy rates for the Sacramento regional market).

Assuming a 5 percent vacancy rate, the 28,314 households projected by 2030 for West Sacramento will create demand for approximately 29,804 housing units. New housing demand totals 12,238 units, which amounts to nearly a 70 percent increase over the city's current housing stock. Current (2012) housing units are split approximately 68 percent single-family and 24 percent multi-family. Detached and attached single-family units constitute the single-family category, and all other units (apartments, condominiums, and mobile homes) comprise the multi-family category.

1.5 INFRASTRUCTURE

Citizens and businesses that live and operate within the City of West Sacramento function in an increasingly complex environment marked by interconnection and interdependence across many facets. This complexity requires that owners and operators of critical infrastructures manage their operational risks in an all-hazards environment across the full spectrum of prevention, protection, response, recovery, and reconstitution activities. The City has come to understand that protection of critical infrastructures is an important component of managing infrastructure risk.

1.5.1 COMMUNICATIONS

Telephone and DSL service in West Sacramento is provided by AT&T. Cable television services are provided by Wave Broadband. The community access channel 21 was developed primarily to provide a forum for non-profit and other organizations to share information and programs that may be of interest to the community. Topics can deal with items such as the arts, business, cultural events, health, music, news, event promotion, public service announcements, religion, science and sports. Broadcast media is provided by KCRA, KVIE, KXTV, KBTU, KUVS, KMAX, XKTU, Fox 40, and West

Sacramento Media Access. Print media is provided by the West Sacramento Press and Sacramento Bee.

1.5.2 TRANSPORTATION

Interstate 80 and U.S. Highway 50/Interstate 80 Business run through West Sacramento with the junction of these two major roadways sitting just inside town. State Route 84 also serves as a primary north-south road through city. Interstate 5 is just across the Sacramento River in Sacramento. West Sacramento is connected to the city of Sacramento via three main bridges over the Sacramento River. The I Street Bridge is a two level bridge built in 1911; cars travel over the upper two lane level while the Union Pacific railroad tracks cross the lower level. The Tower Bridge is a four lane car bridge while the U.S. Highway 50/Interstate 80 Business bridge is a multi-lane highway bridge.

Sierra Northern Railroad is the local rail freight operator. Both Union Pacific Railroad (UP) and Burlington Northern Santa Fe Railroad (BNSF) provide long haul service to and from West Sacramento. UP has a double-track, main line running east-west through West Sacramento from Oakland to Salt Lake City. Both UP and BNSF operate main lines in Sacramento that run from the Northwest U.S. to the Southwest U.S.

Yolobus connects West Sacramento to other cities in Yolo County. There are four local West Sacramento Yolobus lines.

The inland, deep water ship channel called the Port of West Sacramento is located at the geographic center of the city of West Sacramento and handles bulk and break-bulk cargoes through five berths. The 47-mile Deep Water Ship Channel has clear draft of 30 feet and connects the West Sacramento harbor to the San Francisco Bay and the Pacific Ocean. International shipping access is provided via San Francisco's Golden Gate, 80 nautical miles southwest of the Port. Primary cargoes include exported rice and wood chips, and imported fertilizer, logs and lumber.

General Purpose Foreign Trade Zone #143 located at the Port of West Sacramento allows companies to admit foreign and domestic merchandise into the zone for storage, exhibition, assembly, manufacture and processing without being subject to formal customs entry procedures, payment of customs duties, or federal excise taxes. Customs duties and excise taxes are deferred until the merchandise is transferred from the foreign trade zone.

1.5.3 UTILITIES

There are four significant underground transmission pipelines in the City of West Sacramento area:

- Kinder-Morgan Pipeline (liquid petroleum)
- Chevron Pipeline (liquid petroleum)
- Wickland Pipeline (liquid petroleum)
- PG&E Pipeline (natural gas pipeline)
- SMUD (natural gas pipeline)

Natural gas and electrical service is provided by [Pacific Gas & Electric](#).

The Bryte Bend water treatment plant diverts water from the Sacramento River and provides treatment at the recently upgraded and expanded, state-of-the-art, facility, which was designed to serve the city's expanding needs. In addition to the plant, the city operates several water tanks to provide additional storage for fire and emergency needs. The City of West Sacramento runs and maintains a sewer collection system consisting of 12 sewer pump stations along with all underlying sewer pipes across the city. The collected sewage is then delivered to the Sacramento County Regional Sanitation District (SRCSD) via the 19-mile pipeline - Lower Northwest Interceptor (LNWI) for treatment. The City of West Sacramento contracts with Waste Management for solid waste removal.

1.5.4 HEALTH CARE

There are several Hospitals/Medical Centers in West Sacramento:

- Arnold Greenberg, Inc
- Greater Sacramento Medical Clinic
- Harbor Medical Clinic
- River Bend Medical Associates, Inc
- Sacramento Family Medical Center
- Sacramento Occupational Medical Group
- US Health Works Medical Group
- West Sacramento Medical Center
- West Sacramento Pediatrics Medical Group, Inc

1.5.5 EDUCATION

Washington Unified School District serves an ethnically diverse and growing population of 7,421 students, with a staff of 400 certificated employees and 350 classified employees. The district currently operates seven elementary schools (six K-8 schools and one Transitional Kindergarten-5 school), a comprehensive high school, an alternative high school, an independent study program, and an adult education program. At least one additional elementary school is planned for the future to accommodate growth.

In addition to a quality K-12 education program, Washington Unified School District offers a variety of additional educational opportunities to meet the needs of our student population. These additional programs include preschool programs, English as a second language education, special education, a Gifted and Talented Educational (GATE) program, an Advancement via Individual Determination (AVID) program, and an opportunity program.

West Sacramento is also home to the Sacramento City College West Sacramento Center, as well as many charter schools.

1.5.6 CRITICAL FACILITIES

The following list of facilities has been determined to be critical to the ability of the City of West Sacramento to fulfill the requirements of its mission during an emergency:

CSAC #	Name	Address	Function	Special Equipment/Amenities/Notes
325	Fire Station #42	3585 Jefferson Boulevard	Fire Station	1 Engine, 1 Brush truck
326	Fire Station #43	1561 Harbor Boulevard	Fire Station	1 Engine, 1 Brush truck
327	Fire Station #44	905 Fremont Street	Fire Station	1 Engine, 1 Brush truck
329	COWS Police Department	550 Jefferson Boulevard	Police Station	
330	PW and Parks Maintenance Office	1951 S. River Road	Office/Warehouse	Sludge Dewatering Building
335	Parks Maintenance Building	1991 S. River Road	Office	Digester & Pump Room, Caustic Feed Facility, Electric Building, Polymer Building, Blower Building, Sulfur/Chlorine Building, Return Sludge & Pump, Machine Shop
349	Club West Teen Center	1125 Riverbank Road	Community Center	
352	PSIP Water Treatment Plant	1380 Enterprise Boulevard	Well	Pump Building, Wells, Chlorine Building
354	Fire Station #41	132 Fifteenth St.	Fire Station	2 Engines, 1 Squad, 1 Water Tender, 1 Boat
355	George Kristoff Water Treatment Plant	400 N. Harbor Boulevard	Lab/Mechanical Building	Actiflo Basins, Chemical Storage, Low-lift Station, Filter Control Building, Operations and Chemical Feed Building
362	Bryte Pump Station Building	1600 Citrus	Pump Station	Structure - No phone
363	South Pump Station	1966 Park Boulevard	Pump Station	Structure - No phone
364	Coke Lift Station	Coke Street/Evergreen	Pump Station	Structure - No phone
365.01	Water Well #22 & Storage	964 Oak Street	Pump Station	Structure - No phone
366	Deerwood Pump Station	Deerwood St./Lakewood	Pump Station	Structure - No phone
367	Storm Drain Lift Station	Fifth Street and C Street	Pump Station	Structure - No phone
368	Iron Triangle Pump Station	1021 Triangle Court	Pump Station	Structure - No phone

369	Sewer Pump Station	3930 Industrial Boulevard	Pump Station	Structure - No phone
370	Jefferson Pump Station - Control Room	601 Jefferson Boulevard	Pump Station	Structure - No phone
371	Southport Water Reservoir & Pump	Linden Road at Touchstone	Pump Station	Structure - No phone
373	Lighthouse Pump Station	310 B Street Between 3rd and 4th Street	Pump Station	Structure - No phone
376	Washington Underpass Storm Wat	Riske Lane/I-275	Pump Station	Structure - No phone
377	Linden Park	2601 Summerfield Drive	Park	Park Space - No phone
378	Touchstone Park	2598 Independence	Park	Park Space - No phone
379	Elkhorn Park	820 Cummins Way	Park	Park Space - No phone
380	Sam Combs Park	205 Stone Boulevard	Park	Park Space - No phone
381	Memorial Park	18th St. and Delaware	Park	Park Space - No phone
382	Summerfield Park	2950 Linden Rd.	Park	Park Space - No phone
383	Meadowdale Park	3625 W. Capitol Avenue	Park	Park Space - No phone
384	Bryte Park	425 Todhunter Avenue	Park	Park Space - No phone
385	City Property	422 "C" Street	Development Property	Vacant Lot
386	Central Water Tank	Industrial & Stone	Water Tank	Structure - No phone
388	Northeast Water Tank	Fourth & B Street	Water Tank	Structure - No phone
389	Raley's Storm Drain Pump Station	2nd Street/F Street	Pump Station	Structure - No phone
474	Harbor Boulevard Storm Drain Pump Station	Harbor Boulevard/Rice Avenue	Pump Station	Structure - No phone
492	West Sacramento Civic Center	1110 West Capitol Avenue	Government Building	

495	Golden Gate Sewer Lift Station	3400 Golden Gate Drive/Half Moon Bay Circle	Station	Structure - No phone
496	Southport Sewer Lift Station	2500 Jefferson Boulevard	Sewer Lift Station	Structure - No phone
497	Carlin Pump Station	2930 Oates Street	Pump Station	Structure - No phone
499	Washington Fire Station	317 3rd Street	Fire Station (Vacant)	Vacant Structure
560	Bridgeway Lakes Boathouse and Concession Stand	3650 Southport Parkway	Community Center	
562	Bridgeway Island Sewer Pump Station	4099 Otis Avenue	Sewer pump station	Structure - No phone
586	Fire Station 45	Lake Washington Boulevard	Fire Station	2 Ladder Trucks, 2 Engines, 1 Boat
590	City Property	520/540 Harbor Boulevard	Warehouse	
617	Allen Sewer Pump Station	Allen/Linden Road	Pump Station	Structure - No phone
619	Rec Center	2801 Jefferson Boulevard	Sports Center	
622	In-Line Booster Pump Station	2320 Washington Boulevard	Pump Station	Structure - No phone
623	Bryte Bend Flouride Facilities	400 N. Harbor Boulevard	Flouride Facility	Structure - No phone
657	Community Center/Transit Center	1075 West Capitol Avenue	Community Center	
671	Largo Sewer Pump Station	4099 Southport Park	Pump station	
720	Old Town Inn	826 West Capitol Avenue	Development Property	Vacant Lot
724	Port of West Sacramento - Fire Training Tower	2901 Industrial Boulevard	Government Training Facility	Port Front Gate
	Yara International	3961 Channel Dr	HazMat Facility	

	Buckeye Petroleum	1700 S River Rd	HazMat Facility	
	Chevron Pipeline	West Sacramento	Petroleum Pipeline	
	Farmers Rice Cooperative	2224 Industrial Blvd	Rice Storage	
	Federal Express Freight	4075 Channel Dr	Parcel Shipping	
	Kinder Morgan Pipeline	West Sacramento	Petroleum Pipeline	
	UPS	1380 Shore St	Parcel Shipping	
	McKesson Corp	3775 Seaport Blvd	Prescription Drug Warehouse	
	Nor Cal Beverage	2286 Stone Dr	Beverage Manufacturing	
	PG&E Deep Water Substation	3000 Thorpe Rd	Electrical Substation	
	PG&E Oak St Substation	900 Oak St	Electrical Substation	
	Raley Field	400 Ball Park Dr	Baseball Park	
	Raley's Production Bakery	3952 Seaport Blvd	Bakery	
	Shell Oil Products	1509 S River Rd	HazMat Facility	
	Sierra Chemical	788 Northport Dr	HazMat Facility	
	SMUD Pipeline	West Sacramento	Gas Pipeline	
	Regional Sanitation	300300 S River Rd	Waste Transfer	
	Port of West Sacramento	2895 Industrial Blvd	Port	
	Wickland Pipeline	3992 Commerce Dr	Petroleum Pipeline	
	Verizon	2820 KOVR Dr	Telecommunications	
	Level 3 Communications	1075 Triangle Ct	Telecommunications	
	CalSTRS	100 Waterfront Pl	State Building	
	California DGS	707 3rd St	State Building	
	CHP Academy	3500 Reed Ave	CHP Academy	

	US Post Office	3775 Industrial Blvd	Post Service	
	Tony's Fine Foods	3575 Reed Ave	Food Distribution	
	IKEA	700 IKEA Ct	Retailer	
	Walmart	755 Riverpoint Ct	Retailer	
	Union Pacific Railroad	West Sacramento	Railroad	

Table 1: City of West Sacramento Critical Facilities

1.6 WEATHER AND CLIMATE

The Central Valley climate can be described as Mediterranean. During the hot, dry, sunny summers, temperatures can exceed 100 degrees Fahrenheit on some days, however more often summer temperatures are in the low 90s. The Sacramento River Delta breeze usually cools overnight temperatures into the 60s. Spring and fall has some of the most pleasant weather in the state. Table 2 shows the City of West Sacramento weather averages.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High Temp	55	62	67	74	82	89	94	93	89	79	64	55
Low Temp	41	45	47	50	54	58	61	61	59	54	46	40
Precipitation	4.18	3.77	3.15	1.17	.6	.18	.05	.05	.37	1	2.59	2.76

Table 2: City of West Sacramento Weather Averages

1.7 ECONOMICS

West Sacramento is a vibrant, innovative and business friendly community located just across the beautiful Sacramento River from California's capital city. The city's redevelopment, growth and increasingly diverse economy are inspired by a community personality and energy all its own. The City maintains a business climate that encourages new business formation and growth.

It is envisioned for the future that West Sacramento will continue to build on its successes since incorporation, as a vibrant city where people can live, work and play. As the City grows and develops, it will work to expand on its most recognized characteristics.

The West Sacramento Riverfront will be a well-known regional destination and attraction. The river's edge will be a gathering point for people of the Sacramento region and beyond with both active social appoints of activities and quiet, natural opportunities to enjoy the river.

Both sides of the river will be a part of a strong, vibrant, healthy, transit-oriented, and sustainable metropolitan downtown core that will provide a world-class urban experience for workers, visitors and a large residential population.

The City will remain a powerful job center for the region and continue to have a strong and diverse economy, maintaining its current strengths as a global food hub and in distribution, adding significant

new employment in manufacturing and office occupations. The City will continue to retain a job surplus. As the city's downtown, West Capitol Avenue will find new life as an active and attractive mixed-use commercial and residential core.

The City will continue to approach planning and investments that provide community-wide benefit such as the Civic Center, Community Center, River Walk, Barge Canal Access, and bridges that join the north and south areas as well as streetcar and bridges east across the river to downtown Sacramento.

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SECTION 2.0: HAZARD IDENTIFICATION AND RISK ASSESSMENT

The City of West Sacramento identified hazards that affect the city and developed natural hazard profiles based upon the countywide risk assessment, past events and their impacts (see Figure 2).

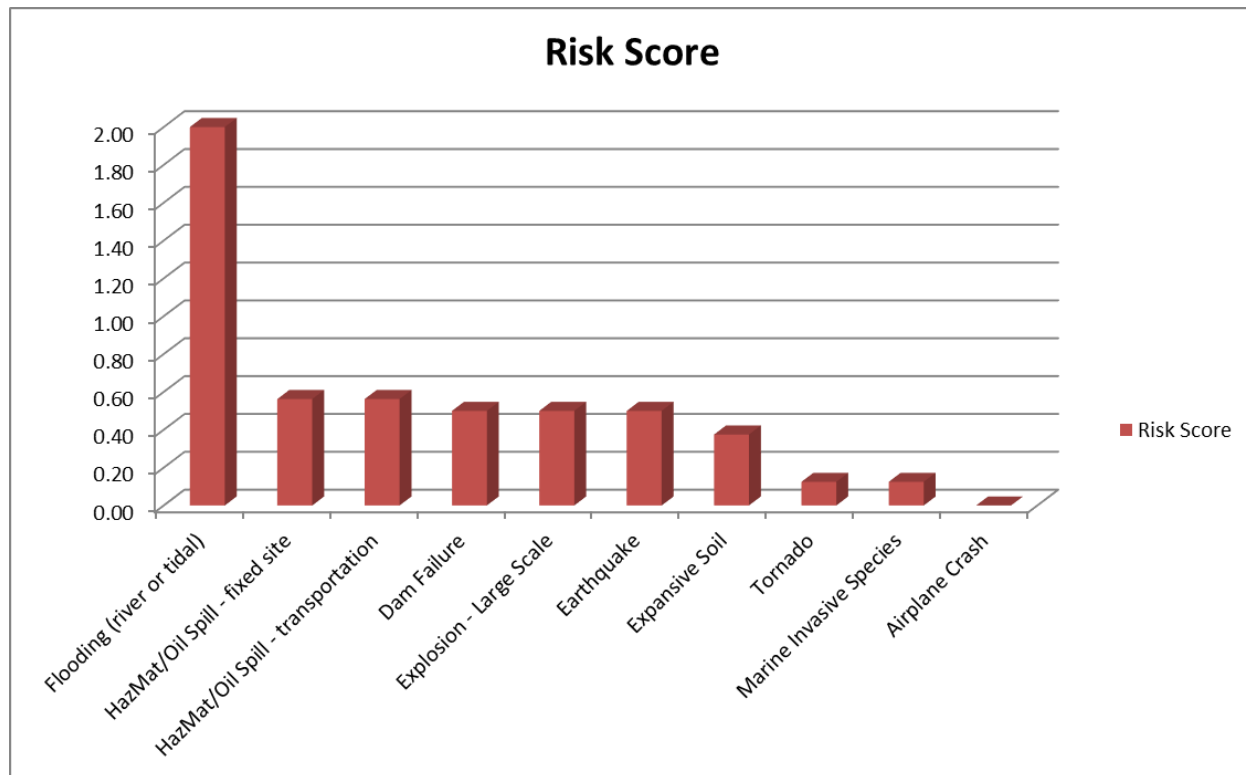


Figure 2: City of West Sacramento Risk Assessment

Definitions for the rankings and a detailed explanation of the hazards can be found in the Hazard Identification and Risk Assessment of the Yolo County Hazard Mitigation Plan (HMP).

2.1 NATURAL HAZARDS

Of the natural hazards profiled in the Yolo County HMP for the Yolo County Operational Area, landslide has been omitted for the City of West Sacramento. There are no landslide prone areas within the City limits. See Table 3 for the probability and extent of each natural hazard profiled for West Sacramento.

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Flooding	Likely	Catastrophic

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Dam Failure	Unlikely	Critical
Levee Failure	Unlikely	Catastrophic
Earthquake	Unlikely	Critical
Land Subsidence	Likely	Negligible
Severe Weather - Fog	Highly Likely	Catastrophic
Severe Weather - Tornado	Occasional	Critical
Severe Weather – High Wind	Highly Likely	Critical
Severe Weather – Extreme Heat	Highly Likely	Critical
Severe Weather - Freeze	Likely	Critical
Volcano	Unlikely	Catastrophic
Wildfire	Likely	Limited
Drought	Likely	Critical
Climate Change	Likely	Critical

Table 3: Probability and Extent for Natural Hazards in the City of West Sacramento

2.1.1 FLOODING

Flooding is identified as the top hazard for the City of West Sacramento. Flooding in West Sacramento could result from a 100-year or greater flood event, localized drainage problems, or dam and levee failure. All of West Sacramento lies within the natural floodplain of the Sacramento River. It is

reclaimed land protected from floods by levees and the Yolo and Sacramento Bypasses, which divert water flood flows around the city to the west.

Local drainage within the northern portion of the city, which contains primarily residential and commercial development, is controlled with a piped storm drain system; drainage in the rural southern portion of the area is controlled by earth-lined drainage channels. Existing drainage problems are discussed in the General Plan.

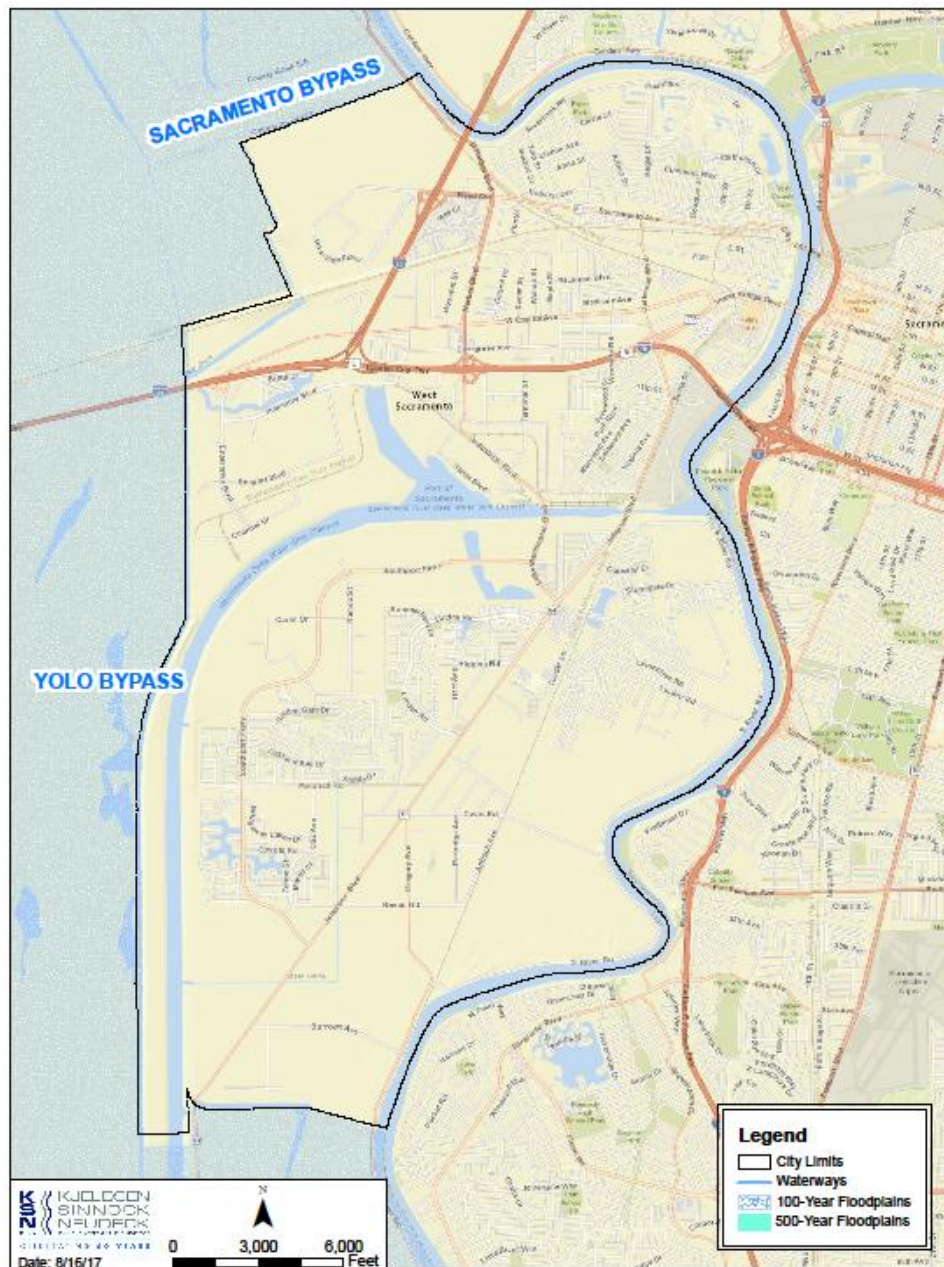


Figure 3: City of West Sacramento Floodplain

2.1.2 DAM FAILURE

In the area of the City there are dams of various types of construction. The failure of any one would cause some degree of flooding in West Sacramento. Failure of a dam structure may result due to impact from strong ground motion, such as following a major earthquake. Below are some of the dams that could affect the city:

- | | |
|----------------|------------------|
| • Shasta Dam | Sacramento River |
| • Oroville Dam | Feather River |
| • Folsom Dam | American River |

Maps associated with each dam show specific inundation areas. In most cases, areas requiring evacuation are many minutes to days downstream.

For other than catastrophic failure of a dam, notification of a potential problem would be initiated by the agency responsible for maintaining the dam in question. Depending upon the dam, that notification might be provided directly to Yolo County. For a catastrophic failure, notice could come as described above, from citizens or even from news media. The more lead time available the more chance that notifications would come from normal sources.

The following is more detailed information about the dams, the times and areas given for potential inundation are the best available estimates. Actual inundation times and areas may vary.

Shasta Dam

Shasta Dam is a concrete gravity dam. The reservoir (Lake Shasta) has a maximum storage capacity of 4,552,000 acre-feet. The dam is located in Shasta County. Dam failure would result in varying degrees of inundation to eastern and northeastern Yolo County including the City of West Sacramento.

Oroville Dam

Oroville Dam is an earth-filled dam. The reservoir (Oroville Lake) has a maximum storage capacity of 3,500,000 acre-feet. The dam is located in Butte County.

Folsom Dam

Folsom Dam is a concrete and earth dam. The lake has a maximum storage capacity of 977,000 acre-feet. The dam is located in Sacramento County, on the American River. Dam failure would result in some degree of inundation to the City.

Nimbus Dam

Nimbus Dam is a concrete gravity dam. The reservoir (Lake Natoma) has a maximum storage capacity of 8,760 acre-feet. The dam is located in Sacramento County. All actions relating to a failure of Nimbus Dam would be identical to those required by a failure of Folsom Dam except the resulting inundation would be less severe.

The extent of local damage and destruction associated with failure of a major dam will range from catastrophic to marginal. The sudden failure of an earthen or concrete dam of any significant size would result in the release of hundreds of thousands of acre-feet of water, depending upon the level

of impoundment at the time of failure. It would be anticipated that areas directly downstream from the face of a failed dam would be immediately inundated and that devastation would be substantial. The further a location is from the dam would the more reduced impact over time, although geography and the placement of diversionary facilities and other improvements would play a part in how floodwaters would be channeled.

There are no specific local government mitigation actions relating to a possible failure of any of the dams affecting West Sacramento. Dam safety is a comprehensive and long-term process that continues throughout the life span of any dam. Appropriate site maintenance, continuous inspection and monitoring, and implementation of periodic site improvements will improve the safety of most dam facilities.

From a local perspective, any mitigation efforts would be directly related to downstream flood plain management activities, which would include land use regulations, engineered flood control improvements, flow-monitoring devices, and other activities not directly associated with the dam itself.

From a response perspective, the immediate concerns for local government in preparation for or in response to a dam failure would normally include:

- Timely dissemination of warning to those areas potentially affected by a sudden dam failure
- Evacuation of populations at risk from flooding to areas of high ground
- Mobilization of response resources in preparation for search and rescue missions
- Restoration of critical infrastructure systems damaged or destroyed by rapid flooding associated with dam failure

2.1.3 LEVEE FAILURE

The potential for flooding in the West Sacramento area depends on the adequacy of the levee system and magnitude of flood hazards. Inundation of West Sacramento could occur if the levees failed or were over-topped by flood waters. The area of greatest concern is along the west bank of the Sacramento River south of the barge canal. A report prepared for the Corps found low stability of levee materials in this area. During the 1986 floods, some slumping of a section of levee occurred near the intersection of Davis Road and South River Road. Other areas that have experienced levee slumping and spreading are located on the east side of the Yolo Bypass. Levee slumping has occurred in areas just south of Highway 80, between Highway 80 and the Southern Pacific railroad tracks, and the levee from the Sacramento Bypass to the railroad tracks. The levee section between the railroad tracks and Highway 80 is now stable after repairs in 1983 and showed no problems during the 1986 floods. The area from the railroad tracks to the Sacramento Bypass has experienced not only slumping and spreading, but also damage from wave action during the 1986 floods. Although much remedial work has been completed, more work is proposed by WSAFCA in conjunction with the Corps to meet the City's 200-year level of protection goal.

2.1.4 EARTHQUAKE

Earthquakes can occur anywhere in West Sacramento, though the city lies along the far eastern boundary of the Coast-Sierran Block Boundary (CRSBB) where most earthquakes in Yolo County

would primarily originate from. While direct impacts from a major earthquake in this area would not be as extensive in West Sacramento as in other areas of the county further west, seiches or oscillations in local bodies of water could overtop and damage levees around this city. This could cause water to inundate surrounding areas. The bodies of water most susceptible to seiches in or near West Sacramento are the Sacramento River, Yolo and Sacramento Bypasses, and the Deep Water Ship Channel. The danger of seiches during seismic events is limited to those periods when the Yolo and Sacramento Bypasses and Sacramento River are full during the flood season. Overtopping of levees during this period could cause a limited amount of flooding; however, the risk of this happening is greatly reduced by the very limited time with which the Sacramento and Yolo and Sacramento Bypasses are at these stages.

A major earthquake also has the potential to compromise any of the connecting bridges to Sacramento, jeopardizing the safe evacuation of West Sacramento residents and hindering the response of neighboring emergency responders.

2.1.5 LAND SUBSIDENCE

Land subsidence could essentially occur anywhere in West Sacramento, though lower expansive soils are primarily found in the city. See the Yolo County HMP for maps of expansive soils and causes of land subsidence in Yolo County. For West Sacramento, higher expansive soils are primarily found on the southern edges of the city. These areas are closer to agricultural fields where there is a higher instance of groundwater pumping, a primary cause of land subsidence. Land subsidence would have minimal impacts for the area of West Sacramento where it primarily occurs as this area is primarily agricultural, but the expansion of housing in the area could result in the future settling of homes.

2.1.6 SEVERE WEATHER

HIGH WIND

High wind could occur anywhere in West Sacramento and could be compounded by atmospheric river events. High winds can fell trees, which can cause subsequent damages to cars and structures as well as critical infrastructure such as power lines and water mains throughout West Sacramento. The California Highway Patrol Airport in West Sacramento is also susceptible to high winds, which can cause damages to aircraft and affect response operations.

FOG

Fog can be prevalent throughout West Sacramento as it is located in the valley of Yolo County where fog is more apt to form. Impacts from fog can be compounded in West Sacramento due the presence of two major highways, Interstate 80 and Interstate 80 Business/U.S. Highway 50, which run through the City. The potential for serious accidents exist due to fog, which could result in injuries and fatalities to motorists and first responders. A major traffic accident on Interstate 80 involving 70 vehicles occurred in West Sacramento due to fog in 1984, causing multiple injuries.

TORNADO

A tornado could touch down anywhere in West Sacramento. Though tornados in the Central Valley of California are often rare and of low intensity (EF-0 or EF-1), the potential exists for an EF-2 tornado to touch down in West Sacramento as it did in Sacramento in 1978. While unlikely, impacts from

such a tornado could be extensive depending on where the tornado touches down and how long it travels. Roofs of structures could be significantly damaged, trees could be knocked over, and cars could be overturned. A less intense EF-0 or EF-1 tornado could cause flying debris and damage to fences. Tornadoes can also produce hail, which can be damaging to cars and buildings.

EXTREME HEAT

Extreme heat can occur at any location in West Sacramento due to its location in the valley of Yolo County. Temperatures can feel warmer in the city due to the widespread presence of concrete and asphalt, which stores heat longer. Heat waves can cause power outages and can sicken people who are exposed to high temperatures too long, particularly infants and the elderly.

FREEZE

Freezing temperatures can occur at any location in West Sacramento. Prolonged exposure to the cold can cause frostbite or hypothermia and can become life-threatening. Infants and the elderly are most susceptible. Pipes may freeze and burst in homes or buildings that are poorly insulated or without heat. Extreme cold can disrupt or impair communications facilities.

2.1.7 VOLCANO

West Sacramento is not located close to any active volcanoes where there is the threat of a lahar flow. West Sacramento could be impacted by ash fall, however, if there were to occur a significant eruption of any of the active volcanoes located throughout the state. Particular areas of concern include the Mt. Shasta, Lassen Volcanic Center, Medicine Lake, and the Clear Lake/Mt. Konocti Volcanic Field. People susceptible to respiratory illnesses would be most impacted by ash fall.

2.1.8 WILDFIRE

West Sacramento does not have a wildland urban interface similar to those in the western, more mountains areas of the county where large wildfires are more apt to occur. As the city is not heavily forested, West Sacramento would primarily experience grass fires that could threaten homes and infrastructure. Grass fires in West Sacramento along Interstate 80 and Interstate 80 Business/U.S. Highway 50 could cause traffic issues as well.

2.1.9 DROUGHT

Drought can increase risk of grass fires and the occurrence of dry wells, especially in the agricultural areas of the City. Prolonged drought conditions can also cause trees to be more susceptible to pest infestations such as Mountain Pine Beetle, Emerald Ash Borer, Asian Long-Horned Beetle and Shot Hole Borer. All of these pests can cause detrimental or fatal consequences to an Urban Forest.

2.1.10 CLIMATE CHANGE

The City of West Sacramento has a Climate Action Plan. The City has joined with other Cities around the world to make a commitment to reducing greenhouse gas emissions which threaten to bring devastating impacts to the world. The municipal organization of the City of West Sacramento is committed to lead by example in reducing greenhouse gases. From energy use management at the water treatment plant to minimize energy use during those peak usage hours where oil and gas fired

electrical generation is at its peak, to the purchase of hybrid vehicles for pool cars, use of recycled materials in parks, more efficient management of public landscape watering, the adoption of a Green Purchasing Policy, a Transportation Management Plan for City Hall employees, and the construction of high energy efficiency buildings with its new Fire Stations and Community Center, and many other actions across departments, the City organization has begun to systematically reduce its carbon footprint. West Sacramento plays a critical role in the regions efforts to reduce greenhouse gases. The City's location near the regional core makes it a special location for transit oriented, urban development which can be significantly superior in terms of the carbon footprint of new development. The City's long standing planning commitment to this kind of neighborhood development along the northeast riverfront in the Bridge District, Washington and Pioneer Bluffs and West Capitol Avenue makes it a leader in the region. The City Council has for years recognized the creation of a Green and Sustainable Strategy as a high priority. The Climate Action Plan quantifies organizational and community emissions, sets targets for reductions and pulls together the measures which will allow the city to reach their goals.

2.2 HAZARD RISK ASSESSMENT – TECHNOLOGICAL AND HUMAN-CAUSED HAZARDS

The City of West Sacramento is not a risk to agricultural pests and diseases or urban conflagration.

2.2.1 EPIDEMIC/PANDEMIC

West Sacramento can experience the same epidemics and pandemics that occur throughout the rest of Yolo County. See the Yolo County Hazard Mitigation Plan for more information.

2.2.2 HAZMAT INCIDENTS

RADIOLOGICAL

The City does not have any meaningful exposure to a nuclear power plant. It could be affected, however, by a transportation accident, a terrorist incident or war.

CHEMICAL

Chemical spills or fires may present serious health risks as well as environmental damage. Necessities such as safe drinking water and clean air may be affected.

BIOLOGICAL

A biological incident or attack would cause a strain on the emergency health system including emergency response, local hospitals and other health care facilities.

2.2.3 TRANSPORTATION ACCIDENTS

VEHICLE ACCIDENTS

Several major highways pass through West Sacramento, including Interstate 80 and US 50. The potential exists for a major vehicle accident to occur on any of these highways, resulting in a mass casualty and/or hazmat incident. A major traffic accident on Interstate 80 involving 70 vehicles occurred in West Sacramento due to fog in 1984, causing multiple injuries.

TRAIN ACCIDENTS

Several major rail lines pass through West Sacramento. The Union Pacific Railroad as well as the Burlington Northern and Santa Fe railroad both operate freight trains through the city. Amtrak operates passenger trains through the city though there are no stops. The Sierra Northern Railroad operates freight traffic to and from the Port of West Sacramento. They also operate the Sacramento River Train, which can carry dozens of people at a time.

AIRPLANE ACCIDENTS

There are no major airports in West Sacramento, though the city lies in close proximity to the Sacramento International Airport and there are several flight pathways over the city. The California Highway Patrol Academy does have an airstrip on its property that is located within the City.

SHIP ACCIDENTS

The Port of West Sacramento handles large freight vessels that transport mainly rice and concrete, which are noncombustible materials. There is the potential for future shipment of ammonium nitrate that could increase risk to the city from a potential ship accident. The vessels are regulated by the International Maritime Organization and the U.S. Coast Guard, who inspect the vessels approximately 30-40 percent of the time they are in port.

2.2.4 POWER/UTILITY FAILURE

In the event of a power/utility failure, the City relies on redundant systems for utility power in coordination with the utility companies that support the City of West Sacramento. During the Wind Storms of 2008, the City was without electrical power for more than six hours in some locations and emergency response plans and protocols were used to provide support where critical.

2.2.5 COMMUNICATIONS/IT FAILURE

In the event of a communications/IT failure, the City relies on a redundant system for internet, phone, and radio access.

2.2.6 TERRORISM

Terrorism in West Sacramento can occur in many forms, including from a car bomb to an incident at Raley Field. In 2017, the West Sacramento SWAT team responded to a terrorism incident near the Tower Bridge (see Figure 4).



Figure 4: 2017 Terrorism Incident in West Sacramento
Source: Sacramento Bee

2.2.7 CIVIL DISTURBANCE

Civil disturbance in West Sacramento can occur as a result of numerous different activities including from a police shooting to an event at Raley Field.

2.3 PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

The City of West Sacramento has been in the National Flood Insurance Program since the City was incorporated in 1987, and prior to incorporation was in the National Flood Insurance Program as part of Yolo County. The City began participation in the Community Rating System in 2010, receiving a Class 8 rating in 2011. The City maintains a Class 6 rating today. An emphasis in future planning and mitigation actions will be placed on continued compliance with the National Flood Insurance Program as well as the Community Rating System.

Below is the NFIP policy and claims statistics for the City of West Sacramento as of March 2013. The NFIP claims statistics are historical back to 1982/1983 when NFIP started collecting this data.

Community	Total Premium	Current Policies	Total Coverage	Flood Losses	Dollars Paid Historical
West Sacramento	\$1,125,568	2,117	\$678,840	35	\$28,179

As of 2017 there is one repetitive loss properties and zero severe repetitive loss properties in the City of West Sacramento. Total RL payouts are \$3,759.16.

Pre-FIRM

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	\$ of Closed Paid Losses	Adjustment Expense
A01-30 & AE Zones	2	\$2,144	\$621,000	0	\$0.00	\$0.00
A Zones	1	\$927	\$100,000	0	\$0.00	\$0.00
AO Zones	0	\$0	\$0	0	\$0.00	\$0.00
AH Zones	0	\$0	\$0	0	\$0.00	\$0.00
AR Zones	0	\$0	\$0	0	\$0.00	\$0.00
A99 Zones	0	\$0	\$0	9	\$24,187.36	\$2,425.00
V01-30 & VE Zones	0	\$0	\$0	0	\$0.00	\$0.00
V Zones	0	\$0	\$0	0	\$0.00	\$0.00
D Zones	0	\$0	\$0	0	\$0.00	\$0.00
B, C & X Zone	1,063	\$471,817	\$348,795,800	4	\$9,766.63	\$2,220.00
Standard	17	\$33,707	\$5,858,800	0	\$0.00	\$0.00
Preferred	1,046	\$438,110	\$342,937,000	4	\$9,766.63	\$2,220.00
Grand Total	1,066	\$474,888	\$349,516,800	13	\$33,953.00	\$4,645.00

Post-FIRM

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	\$ of Closed Paid Losses	Adjustment Expense
A01-30 & AE Zones	0	\$0	\$0	0	\$0.00	\$0.00
A Zones	0	\$0	\$0	0	\$0.00	\$0.00
AO Zones	0	\$0	\$0	0	\$0.00	\$0.00
AH Zones	0	\$0	\$0	0	\$0.00	\$0.00
AR Zones	0	\$0	\$0	0	\$0.00	\$0.00
A99 Zones	0	\$0	\$0	1	\$2,447.81	\$275.00
V01-30 & VE Zones	0	\$0	\$0	0	\$0.00	\$0.00
V Zones	0	\$0	\$0	0	\$0.00	\$0.00
D Zones	0	\$0	\$0	0	\$0.00	\$0.00
B, C & X Zone	1,647	\$689,163	\$522,526,900	0	\$0.00	\$0.00
Standard	263	\$120,427	\$50,242,900	0	\$0.00	\$0.00
Preferred	1,384	\$568,736	\$472,284,000	0	\$0.00	\$0.00
Grand Total	1,647	\$689,163	\$522,526,900	1	\$2,447.00	\$275.00

Table 5: Insurance Policies in West Sacramento by Zone

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SECTION 3.0 MITIGATION STRATEGY

3.1 CAPABILITY ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capability assessment is divided into five sections: regulatory, administrative and technical, fiscal, outreach and partnerships, and other mitigation efforts.

3.1.1 REGULATORY CAPABILITY

The legal and regulatory capabilities of each jurisdiction are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of each jurisdiction. Examples of legal and/or regulatory capabilities can include: a jurisdiction's building codes, zoning ordinances, subdivision ordinances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

City of West Sacramento Regulatory and Planning Capabilities

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Building code	√	√	√	√	√	√
Zoning ordinance	√	√	√	√	√	√
Subdivision ordinance or regulations	√	√	√	√	√	
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	√	√	√	√	√	√
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	√	√	√	√	√	√
Site plan review requirements	√	√	√	√	√	√
General or comprehensive plan	√	√	√	√	√	
A capital improvements plan	√	√	√		√	√
An economic development plan	√	√	√	√	√	√
An emergency response plan	√	√	√	√	√	√
A post-disaster recovery plan				√		√

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
A post-disaster recovery ordinance						
Real estate disclosure requirements	√	√	√	√	√	
Habitat Management Plan	√	√	√	√	√	
Master Drainage, Sewer, Water, & Reclaimed Water	√	√	√	√	√	√
Redevelopment Master Plan	√	√	√	√	√	

Source: Steering Committee

Municipal Ordinances

Title 17 of the City of West Sacramento Municipal Code is the local code that refers to local mitigation and associated land use practices and policies.

Chapter 18.04 of the City's Municipal Code establishes provisions to restrict, prohibit, or control development of uses that could increase or cause flood damage. This chapter of the Municipal Code also establishes the community development director as the floodplain administrator. The duty of the floodplain administrator is to review development permits for consistency with criteria in the City Municipal Code, and other State and Federal requirements.

The City of West Sacramento has fully adopted the California Building Standards. Title 15 of the West Sacramento Municipal Code includes amendments to the Building Standards to provide more specific requirements within the city. This includes an amendment stating that where the standards of the Code for required water supply for fire protection cannot be implemented, such as in rural areas where access to the public water supply is not available, a fire sprinkler system deemed acceptable by the fire chief may be installed. This does require connection to the public water supply.

Emergency Management & Preparedness

The West Sacramento Fire Department serves as emergency management coordinator for the City of West Sacramento and is the lead agency that fulfills the city's requirements under the Emergency Services Act (Government Code Section 8550 et. seq.). This office works with all city departments and other partners having emergency management responsibilities including, the Yolo County Office of Emergency Services (OES) and surrounding jurisdictions.

3.1.2 ADMINISTRATIVE AND TECHNICAL CAPABILITY

The **Administrative and Technical Capability** table identifies the city personnel responsible for activities related to mitigation and loss prevention in the City of West Sacramento. Many positions are full time and/or filled by the same person. A summary of technical resources follows.

City of West Sacramento Personnel Capabilities

Personnel Resources	Department/Position
Engineer and/or Planner with knowledge of land development/land management practices	Community Development; Public Works Department
Professional trained in construction practices related to buildings and/or infrastructure	Community Development; Building Official, Public Works Department
Full time Building Official	Community Development; Building Official; Public Works
Full time Fire Marshal	Fire Department
Floodplain Manager	Public Works Department; Flood Management
Emergency Manager	City Manager's Office, Fire Department
Grant Writer	Various Departments
Other Personnel Resources	Various Departments

Source: Steering Committee

3.1.3 ADMINISTRATIVE AND TECHNICAL CAPABILITY

The **Fiscal Capability** table shows specific financial and budgetary tools available to the jurisdictions such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

City of West Sacramento Available Financial Tools and Resources

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Community Development Block Grants	√	√	√	√	√*	
Capital improvements project funding	√	√	√	√	√	
Authority to levy taxes for specific purposes	√	√	√	√	√**	
Fees for water, sewer, gas, or electric service	√	√	√	√	√	
Impact fees for homebuyers or developers for new developments/homes	√	√	√	√	√	
Incur debt through general obligation bonds	√	√	√	√	√**	

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Incur debt through special tax and revenue bonds	√	√	√	√	√**	
Incur debt through private activity bonds	√	√	√	√	√**	
Withhold spending in hazard-prone areas	√	√	√	√	√	

* Subject to grant from State

** Subject to voter approval

Source: Steering Committee

3.1.4 COMMUNITY OUTREACH

In times of emergency or disaster, agencies like the West Sacramento Fire and Police Departments will turn to citizen volunteers for assistance, especially in the first hours of an event. Both public safety agencies have been training citizens through their respective volunteer organizations such as the Community Emergency Response Team (CERT) or the Volunteers in Policing Services (VIPS). Both programs train residents in basic disaster response skills. These programs can make a positive difference when citizens may need to be on their own temporarily.

The City works with the Bryte and Broderick Community Action Network (BBCAN) which implements and supports programs and projects to meet the aspirations of the diverse community by working with the City, non-profit and faith-based organizations, schools, and businesses toward sustaining a healthy, informed, and engaged community, in which planning and mitigating against future disasters is an area of focus.

3.2 FUTURE DEVELOPMENT TRENDS

Lighthouse Charter School

Leaders & Scholars Two, LLC has submitted an application for a TK-8 public charter school to be located at 841 Bryte Avenue and 1444 Hobson Avenue on a site which totals 4.2 net acres. The school is proposed to accommodate 300 students in TK-5th grade at opening and the student body size is anticipated to increase to approximately 600 students in grades TK-8th grade by the 2022-23 school year. The campus is proposed to be 46,120 square feet in size and will include TK-8th grade classrooms, art, band, music, and science rooms as well as a learning center, media center, and office. A multi-purpose building with a gym, stage, bathrooms, and warming kitchen will also be constructed. The main entrance for the school will be on Bryte Avenue and there will be over 750 linear feet on on-site car stacking for pickup/drop off of students.

Riverpark

Sun M is proposing the revision of a previously approved development in Southport which would consist of up to 2,732 residential units and a 10 acre K-8 school along with several parks. The proposed project requires approval of a General Plan amendment, Specific Plan, Amendment of the Southport Framework Plan, rezoning, Conditional Use Permit, and a vesting master tentative map. This project is located in the Northwest Village of the Southport Framework Plan area and includes approximately 373.5 acres. It is bounded on the east/south by the Sacramento River levee system, on the north by Davis Road, and on the west by the Clarksburg Branch Line Trail.

Liberty

The Paik family is proposing the development of a new community in Southport which would consist of up to 1,503 residential units, a 17 acre K-8 school, up to 10,000 square feet of retail commercial, plus parks, greenbelts, and trails. The proposed project requires approval of a General Plan amendment, Specific Plan, Amendment of the Southport Framework Plan, rezone, Conditional Use Permit, and a vesting master tentative map. This project is located in the Northwest Village of the Southport Framework Plan area and includes approximately 340 acres, and is bounded on the east by the Sacramento River levee system, on the south by Davis Road, on the west by the Clarksburg Branch Line Trail, and on the north by Linden Road.

Newport Villas

Seecon Financial & Construction has submitted an application requesting approval of a tentative map for a subdivision consisting of 36 single family residential lots, one lot for pedestrian access to the project, and one lot for landscaping/entry. The applicant also submitted an application for design review of the project.

Bridge District Phase 4 Vesting Tentative Map & Design Review

Smart Growth Investors II, LP has submitted an application requesting approval of a tentative map to create 14 lots for the development of 11 single family homes, 6 condo units, and a 69-unit apartment building. The applicant has also submitted an application for design review of the project. The application is currently being reviewed for completeness and a public hearing date has not yet been set. The project is located west of Riverfront Street, north of Mill Street, and east and west of Central Street.

Delta Lane Multi Family Housing

KTGY Architects has submitted an application for Design Review for a 256-unit market rate multi-family housing project. The project would be located east of Grand Street, west of 5th Street, south of Delta Lane, and north of the proposed Casey Street.

The Savoy

Kuchman Architects submitted an application requesting approval of entitlements for a 25 unit small lot residential infill project called The Savoy. The project is located within the Washington District at 641 5th Street and consists of a mix of single family and duplex homes. The applicant is seeking approval of a vesting tentative subdivision map to divide the property into 22 lots, design review, and deviations from the Washington District Specific Plan.

Port Towne

Andrews BTE Company, Inc. has submitted an application requesting a two year time extension for the Port Towne Vesting Tentative Subdivision Map. The project is located a 3250 Bevan Road and consists of 132 residential lots on a 12.9 acre site. The project was originally approved in 2007 and due to the economic downturn had been granted legislative time extensions on the map.

3.3 MITIGATION GOALS

The City of West Sacramento has adopted the hazard mitigation goals and objectives from the Yolo County Hazard Mitigation Plan:

Goal 1:	Protection of life during and after the occurrence of disasters from identified hazards;
Goal 2:	Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
Goal 3:	Protection of emergency response capability
Goal 4:	Protection of developed property, homes and businesses, industry, educational opportunities and the cultural fabric by combining hazard loss reduction with the community's environmental, social and economic needs
Goal 5:	Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives
Goal 6:	Preserving or restoring natural mitigation values such as flood plains.
Goal 7:	Protection of natural resources and the environment.

Planning Process Objectives

The following objectives are meant to serve as a metric upon which the Yolo Operational Area Hazard Mitigation Plan can be evaluated. Meeting these objectives assures the Multi Hazard Mitigation Plan as a functional document that identifies short-and long-term strategies, and describes each measure including:

Objective 1:	Identification of individuals, agencies or organizations responsible for project implementation.
Objective 2:	Projecting a realistic and doable time frame for project implementation.
Objective 3:	Explanation of how the project will be financed including the conditions for financing and implementation as information is available.
Objective 4:	Identification of alternative measures, should financing not be available.
Objective 5:	Maintain consistent support for the implementation of existing hazard mitigation planning goals and objectives for the operational area.
Objective 6:	Base mitigation strategies on hazards as identified within the Yolo OA Risk Assessment.
Objective 7:	Provide significant potential for the effective reduction of damage to public and/or private property, or to costs associated with local, state, and federal recovery from future potential impacts.

Objective 8:	Establish and maintain a benchmark for identifying the most practical, cost effective, socially acceptable, and environmentally sound mitigation solution after consideration of available alternatives.
Objective 9:	Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential for loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering.
Objective 10:	Meet applicable permit requirements.
Objective 11:	Develop mitigation standards for development in hazardous areas.
Objective 12:	Contribute to both the short-and long-term solution to the hazard vulnerability risk problem.
Objective 13:	Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation.
Objective 14:	Have manageable maintenance and modification costs.
Objective 15:	When feasible, be designed to accomplish multiple objectives including improvement of life safety, damage reduction, restoration of essential services, protection of critical infrastructure, security of economic development, recovery, and environmental sustainability.
Objective 16:	Whenever feasible, use existing resources, agencies and programs to implement the project.
Objective 17:	Include regional hazard mitigation concerns and strategies

3.4 MITIGATION PROJECTS

The following mitigation projects were identified based on the hazard vulnerability and risk analysis for the City of West Sacramento:

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
All Hazards Public Awareness and Disaster Preparedness	All / Yolo County Office of Emergency Services (OES)	Existing (2005)	Yolo County OES General Fund	Ongoing	Important element of CRS program

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	Yolo County and the Cities of Davis, West Sacramento, Winters, and Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
Community Warning System	All / Yolo County OES	COMPLETE D (2005)	Yolo County OES General Fund	Completed	These systems are continually updated due to changing technology
2018 Yolo County Hazard Mitigation Plan Update	All / Yolo County OES	NEW (2016)	PDM, HMGP	2018	Five-year required update
DROUGHT					
Drought Contingency Plan	All / Yolo County OES	Existing (2013)	PDM, HMGP	2018	Ongoing
Drought Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change
EARTHQUAKE					
Non-Structural Mitigation Outreach Program	All / Yolo County Community Services Department	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
FLOODING/LEVEE FAILURE					
Promote Flood Insurance (Cont'd participation in the NFIP)	Yolo County and the Cities of Davis, West Sacramento, Winters, Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
FIRM Map Updates	Davis / Public Works Department	NEW (2017)	PDM, FMA	Ongoing	To include H Street Pump Station
FLOODING/LEVEE FAILURE					
Flood Response Planning Project to Include GIS Mapping	Yolo County / Yolo County OES, West Sacramento / Public Works Department	Completed (2013)	DWR Grants	Completed	Completed
Levee Improvements	West Sacramento / Public Works Department	Existing (2005)	DWR Grants	Ongoing	Ongoing
Promote Flood Insurance (Cont'd participation in the NFIP)	Yolo County and the Cities of Davis, West Sacramento, Winters, Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
RD 537 Pump Station Upgrades	City of West Sacramento / Yolo County / RD 537	New	\$2.2 million HMGP	2023	
West Sacramento Storm Drain Master Plan Update	City of West Sacramento	Existing	\$2.2 million HMGP	2023	
Localized Flooding Reduction Project	City of West Sacramento	Existing	\$13.5 million HMGP	2028	

SECTION 4.0: PLAN REVIEW, EVALUATION AND IMPLEMENTATION

The strategies presented are deemed appropriate and effective by recommendation of the City of West Sacramento.

4.1 PLAN ADOPTION

Upon submission to the California Office of Emergency Services (CalOES) for review, and subsequent approval by the Federal Emergency Management Agency (FEMA), the Yolo County Hazard Mitigation Plan will be presented to local government for formal adoption. As appropriate, the adopted plan and accompanying City of West Sacramento Community Profile will then be incorporated into local general plans for integration into organizational policy.

4.2 PLAN MONITORING

The process of hazard mitigation does not end with the completion, approval, and adoption of the Yolo County Hazard Mitigation Plan and the City of West Sacramento Community Profile. Within the lifespan of these documents (five years), local government along with community-based organizations will ensure that the mitigation goals and strategies identified are monitored, that plan administration will continue under a collaborative and cooperative umbrella, and that the document itself will be properly maintained.

The Yolo County Office of Emergency Services, as lead coordination agency for hazard mitigation planning within the Yolo OA, and will assist and support the ongoing collaborative efforts of the City of West Sacramento, through the established Hazard Mitigation Steering Committee. Specific plan maintenance activities by the Yolo County Office of Emergency Services and the City of West Sacramento may include:

- Distribution of the HMP and Community Profile to all interested parties, including both written and digital formats
- Monitoring of the City of West Sacramento mitigation project activities and dissemination of status reports
- Generation of reports relative to plan status, project management, and revision updates to executive leadership
- Preparations for plan eventual revision and updating

4.3 PLAN EVALUATION

Upon approval and adoption by the City of West Sacramento, the prioritized mitigation strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

The mitigation strategies represented and adopted within this plan are recommendations only, and must be approved and funded in order to be implemented as official mitigation solutions. Ultimately, it is the responsibility of jurisdictional and agency officials within the Yolo Operational Area to undertake project implementation based upon identified mitigation strategies, funding availability, and local need when it arises. The Yolo County Office of Emergency Services will meet with the Hazard Mitigation Steering Committee to evaluate the plan after each update meeting.

4.4 PLAN UPDATE

During the five year update cycle, the Yolo County Office of Emergency Services will hold tri-annual update meetings with the Hazard Mitigation Steering Committee and local stakeholders to discuss revisions to the plan. The Yolo County Office of Emergency Services will continue to hold public meetings after the first and third update meetings annually, and will continue to invite public participation in the update process via updated public surveys.

DRAFT

APPENDIX A: ADOPTION LETTER

DRAFT

APPENDIX H: COMMUNITY PROFILE – CITY OF WINTERS

DRAFT



This document is a support annex to the
Yolo County Multijurisdictional Hazard
Mitigation Plan

City of Winters Community Profile



Version 1.0

December 2018



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ACKNOWLEDGEMENTS

The City of Winters would like to thank those Yolo County Operational Area collaborators and partners who participated in the planning and development of this document.

The official Yolo County Operational Area Hazard Mitigation Steering Committee provided the oversight and dedication to this project that was required and without their commitment; this project would not be possible.

As with any working plan, this document represents planning strategies and guidance as understood as of the date of this plan's release. This plan identifies natural hazards and risks and identifies the hazard mitigation strategy to reduce vulnerability and make the City of Winters more disaster resistant and sustainable.

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LETTER OF PROMULGATION

December 2018

To: Officials and Employees of the City of Winters

The preservation of life and property is an inherent responsibility of city government. As disasters occur in devastating form at any time, the City of Winters must provide safeguards which will save lives and minimize property damage through mitigation planning and training. Sound mitigation planning carried out by knowledgeable and well-trained personnel can and will minimize losses.

The Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan (HMP) identifies the hazard risks and vulnerabilities for the Yolo County Operational Area and identifies mitigation projects and actions to help reduce those risks. It provides for the integration and coordination of planning efforts of multiple jurisdictions within Yolo County as well as the Yocha Dehe Wintun Nation and the Housing Authority of Yolo County.

This City of Winters Community Profile is an extension of the HMP. The content is based upon guidance approved and provided by the Federal Emergency Management Agency and the California Governor's Office of Emergency Services. The intent is to provide direction for the City of Winters on how to mitigate against the threat of disaster through effective mitigation strategies and initiatives.

Once adopted, the HMP and Community Profile will be reviewed and tested periodically and revised as necessary to meet changing conditions and requirements.

The City of Winters City Council gives its full support to this Community Profile and urges all employees and individuals to mitigate against the threat of disaster before they occur.

Chair, City Council

City of Winters

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SECTION 1.0: INTRODUCTION

The City of Winters Community Profile has been prepared in conjunction with the Yolo County Operational Area Hazard Multi-Jurisdictional Mitigation Plan (HMP), establishing an inter-jurisdictional process for the development and implementation of effective hazard mitigation strategies in association with identified hazards that pose real or potential threats to the unincorporated areas of Yolo County.

1.1 HISTORY

The settlement of the Winters area began in 1842 with a land grant from the Mexican government of 17,750 acres along Putah Creek to William Wolfskill. Members of the Wolfskill family established residences and ranches on Putah Creek and began the planting of vegetable crops and the areas' first fruit trees and grapevines.

In 1865 Theodore Winters, a race horse breeder and entrepreneur purchased one of the Wolfskill ranches. Mr. Winters is credited with promoting thoroughbred horse racing in the West, and the land he purchased soon sported a ranch, stables, and a racetrack. It was in 1875, with the extension of the Vaca Valley Railroad to the north bank of Putah Creek that the town was established. The Stevenson brothers, owners of the railroad named the forty acre town site for Theodore Winters, a major supporter of the railroad extension, and from whom the land was purchased.

As the northern terminus of the Vaca Valley Railroad, this new settlement initially grew rather quickly. The original produce shipped from the area included peaches, almonds, plums, pears, cherries, figs, oranges, olives, barley and wheat. Winters became a busy agricultural center and several new businesses were established to support the agricultural industry and the town residents. Among them was the establishment of the Winters Express newspaper in January of 1884 which continues in existence to this day and is the primary source of local news for Winters residents.

On April 19, 1892 Winters was rocked with a violent earthquake. One death was reported and several businesses and residences suffered extensive damage. Shelter for the homeless during reconstruction consisted of sleeping cars provided by the Southern Pacific Railroad and National Guard tents. In late 1896, a meeting was held in the Opera House to seek the incorporation of the town of Winters. It was not until 1898, however, that the city was incorporated. A few months later, the Volunteer Fire Department was established and in 1897, the Winters Dried Fruit Company, which would become a major economic force in the community, was organized.

The town thrived on its commercial/agriculture base. New fruit sheds and warehouses were constructed. The prune and apricot growers were organized in 1916 and the Winters Dried Fruit Company, established in 1897, handled the operation for the association. It also purchased the Winters Canning Company, remodeling the building into a modern plant that packed and shipped fruit to several foreign countries as well as throughout the United States.

The growth of Winters was somewhat subdued during the years from 1920 to 1940. There was a refinement of early growth during the 1920's and some construction activity in the middle and late years of that decade. The strong agricultural base of the region sustained the town, its bank, and its

industry through the ensuing Depression years, when dried apricots sold for as little as a nickel a pound. The productivity of the land and the determination of its inhabitants kept the town operating, but little construction appears to have occurred during the early 1930's.

More recent years have seen some gradual changes in the composition and character of the population and in the prominence of different crops. The predominant production of fresh fruits, particularly apricots, peaches, and cherries, has gradually been replaced by the nut industries, due to marketing trends and the difficulty of handling the ripe fruits. Additionally the agricultural community has responded to the demand for organic produce by becoming home to several organic growers. There has been a transition of migrant farm workers to a stable agricultural labor force and contract labor. Fruit packing plants have been relocated to the rural areas and current trends are reviving the 1920's practice of selling fruit directly to the public at the production ranch site. Agricultural lands north and east of Winters are chiefly devoted to rotation crops of tomatoes, grains, alfalfa and rice.

Winters continues to maintain its rural hometown charm and embraces its heritage while looking towards the future. In 1985, the city adopted an ordinance which created a Historical Preservation Commission and established procedures for designating and protecting historical landmarks and districts. This ordinance established a historical district, which encompasses the one-block area along Main Street - between Railroad Avenue and First Street, which is Downtown Winters. The Historic Resources Inventory identifies 14 structures which are being included on the National Register of Historic Places.

These attractive historic buildings retain their architectural detail and also reflect the city's growth and economic development policies which aim to encourage investment at the center of the community. Although nearby technology facilities, regional tourism, Cache Creek Casino Resort and UC Davis all continue to expand, agriculture remains the basis of the local economy. Winters is the regional center for farms growing and distributing the high quality, value-added produce that supplies many of Northern California's farmers markets and most renowned restaurants.

Winters is also home to an arts and artisan community, and residents prize the quality of life in a small town that is close to a major metropolitan area as well as expansive recreational and open space areas. With these and other attributes, Winters' desirability as a place to live and work will continue to grow.

1.2 OVERVIEW

The City of Winters is a small, General Law municipality located in the southwestern section of Yolo County. Winters is a regional service center to the unincorporated area of Yolo County, including agricultural operations. It is also a transportation service center, serving the Interstate 505 corridor. The southern boundary of the city is Putah Creek. The city is bordered to the west by Dry Creek and a view of the Vaca Mountain Range. The eastern city limit is now Highway 505 while the northern boundary runs to vast tracts of farm land. Winters is located approximately 10 miles west of the city of Davis and 10 miles north of the city of Vacaville. Winters' urban limit line contains approximately 1,980 acres; of which 1,277 are currently within the incorporated limits. Winters consists of a balanced mixture of residential, commercial, service, and light industry activity.

See Figure 1 for a map of the City of Winters and Figure 2 for a more detailed street map of the City of Winters.



Figure 1: City of Winters Map

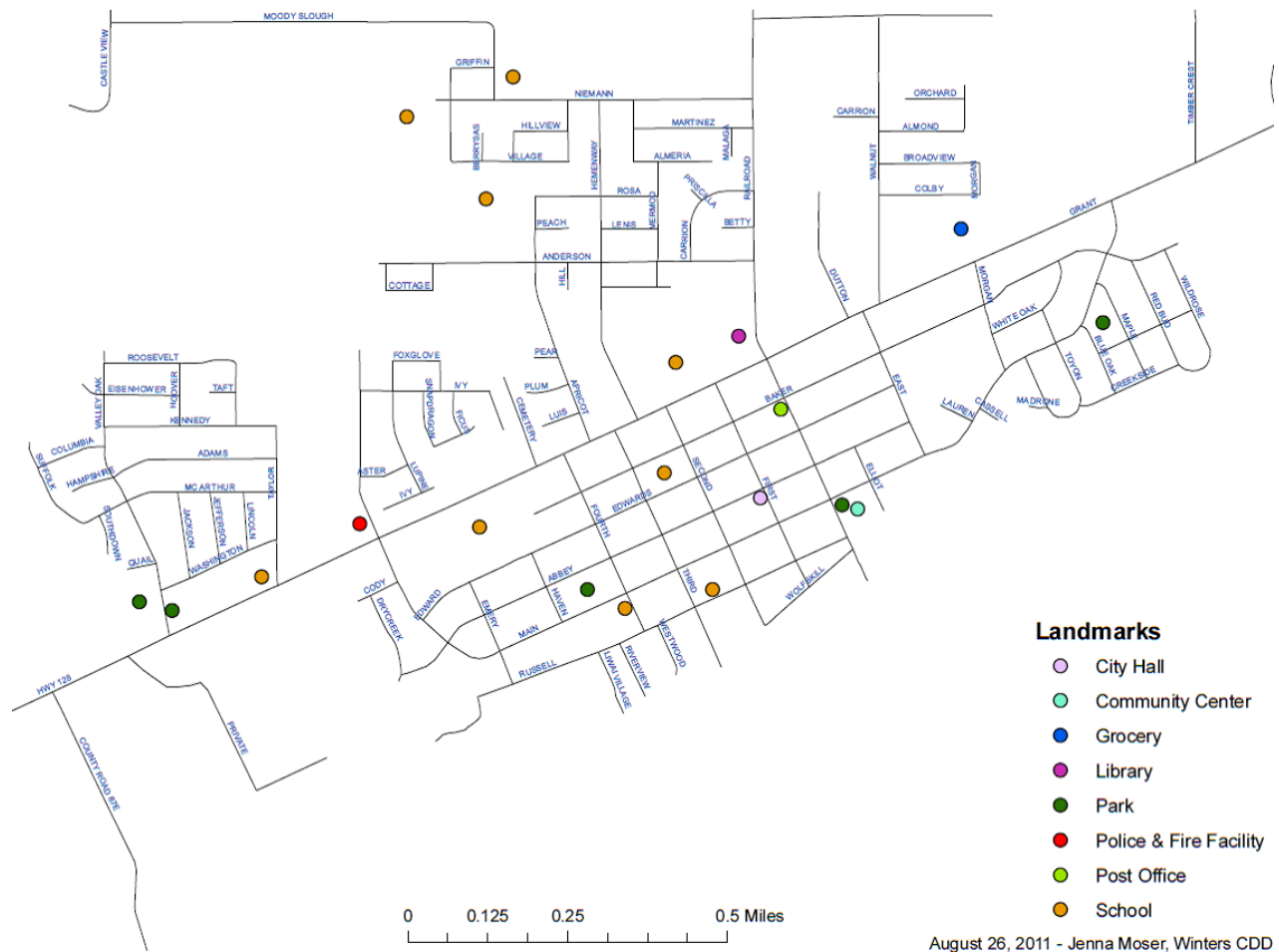


Figure 2: City of Winters Street Map

Walnut Park is the newest park in Winters, located between Dutton Street and Walnut Lane. See Figure 3 for a map of the Winters Ranch, the newest Winters subdivision.



Figure 3: Winters Ranch Map

1.3 DEMOGRAPHICS

According the U.S. Census Bureau, the population of Winters was 7,144 in 2016. This is a 7.9 percent population increase from 2010.

Housing prices in Winters are generally higher than the rest of the Greater Sacramento Area, California, and the nation. The median value of an owner-occupied housing unit was \$255,900 during the 2011-2015 period, down from \$297,884 during the 2005-2009 period. The value for the state of California during the 2011-2015 period was \$385,500 and was \$178,600 for the nation.

1.4 INFRASTRUCTURE

Critical infrastructure within the City of Winters include roadways (including two bridges), communication systems (land line and cellular telephone, public safety radio network), and utilities (electrical power, water supply, sewage treatment, natural gas and petroleum fuels). Residents rely heavily on these critical infrastructure items being in place and working properly. A disruption in any of these could threaten the safety of Winters residents and have a severe economic impact.

1.4.1 COMMUNICATIONS

Primary landline commercial phone service is provided by AT&T however there are several cellular networks operating in the area. Wave Cable, SBC Global and Winters Broadband are the major data network providers. Wave Cable provides community cable television service.

See Table 1 for a list of television stations broadcasting signals to the City of Winters:

Call Sign	Broadcast Point	Call Sign	Broadcast Point
KCRA Channel 3	Sacramento	KSPX Channel 29	Sacramento
KVIE Channel 6	Sacramento	KMAX Channel 31	Sacramento
KXTV Channel 10	Sacramento	KTXL Channel 40	Sacramento
KOVR Channel 13	Stockton	KQCA Channel 58	Stockton
KEZT-CA Channel 23	Sacramento		

Table 1: TV Stations Broadcasting to Winters

See Table 2 for a list of AM radio stations broadcasting signals to the City of Winters:

AM Radio Stations Serving Winters			
Call Sign	Broadcast Point	Call Sign	Broadcast Point
KCBS – 740	San Francisco	KIQI – 1010	San Francisco
KFBK – 650	Sacramento	KTCT – 1050	San Mateo
KSTE – 650	Rancho Cordova	KGO – 810	San Francisco
KHTK – 1140	Sacramento	KFAX – 1100	San Francisco
KTRB – 860	Modesto	KCBC – 770	Riverbank
KFIA – 710	Carmichael	KATD – 990	Pittsburg
KNBR – 680	San Francisco		

Table 2: AM Stations Broadcasting to Winters

See Table 3 for a list of FM radio stations broadcasting signals to the City of Winters:

FM Radio Stations Serving Winters			
Call Sign/Frequency	Broadcast Point	Call Sign/Frequency	Broadcast Point
KUIC – 95.3	Vacaville	KNDL – 8.9	Angwin
KLVR – 91.9	Santa Rosa	KXTS – 100.9	Calistoga
KBBF – 89.1	Santa Rosa	KKSF (FM1) – 103.7	Pleasanton
KBLX (FM2) – 102.9	Pleasanton	KSOL (FM3) – 98.9	Pleasanton
KFRC (FM3) – 99.7	Walnut Creek	KZBR (FM1) – 95.7	Walnut Creek
KKFS – 105.5	Dunnigan	KISQ (FM3) – 98.1	Concord
KMEL (FM1) – 106.1	Concord	KSXY – 98.7	Middletown
KSFM – 102.5	Woodland	KRCX – 99.9	Marysville
KSFB – 100.7	San Rafael	KMJE – 101.5	Gridley

Table 3: FM Stations Broadcasting to Winters

Local and regional newspapers serving Winters include the Winters Express, Davis Enterprise, Vacaville Reporter, Daily Democrat (Woodland), and the Sacramento Bee.

1.4.2 TRANSPORTATION

The City of Winters is served by two primary highways: Interstate 505 and State Route 128. Interstate 505 runs north to south just outside the eastern city limits and connects Interstate 80 to Interstate 5. State Route 128 runs east to west through the middle of the city.

Yolobus connects Winters to other cities in Yolo and Solano Counties; Route 220 serves Davis, Winters, and Vacaville.

There are no commercial or general aviation airports within Winters. The Yolo County Airport and Sacramento International Airport are the two closest airports.

Although Winters borders Putah Creek there are no navigable waterways within or shared by the city.

1.4.3 UTILITIES

Two major natural gas pipelines owned by Pacific Gas & Electric run side by side through winters. Natural gas and electrical service is provided by [Pacific Gas & Electric](#).

Water is provided by the City of Winters Water Department. The system is comprised of five (5) wells, the City utilizes groundwater only. Water is disinfected with chlorine with no other treatment or additives. There are no water storage facilities. On average 550 million gallons are produced per year, serving 2025 water service connections. The system operates at a pressure of 55-60 psi (pounds per square inch). Wells are able to respond independently and jointly to address pressure changes and demand. The City has recently added a SCADA system and also installed water meters at all service locations.

The City conducts its own waste water treatment. The City contracts with Waste Management for refuse collection, curbside recycling, street sweeping and green waste collection.

1.4.4 HEALTH CARE

There are no acute care hospitals or skilled nursing facilities in Winters. There are two medical clinics, the Winters Healthcare Foundation Clinic and the Sutter West Medical Group.

1.4.5 EDUCATION

There are no universities or colleges located in Winters. The following is a list of the public primary and secondary schools in Winters:

School	Location	Grades
Waggoner Elementary School	500 Edwards Street	K-3
Shirley Rominger Intermediate School	502 Niemann Street	4-5
Winters Middle School	425 Anderson Avenue	6-8
Winters High School	101 Grant Avenue	9-12

School	Location	Grades
Wolfskill Continuation High School	200 Baker Street	9-12
Winters Preschool	219 Edwards Street	Pre-Kindergarten

1.4.6 CRITICAL FACILITIES

Table 4 shows a list of critical facilities in the City of Winters:

Facility	Location	Facility	Location
City Hall	318 First Street	Water Well #2	201 East Street
Administrative & Finance Offices	318 First Street	Water Well #4	702 Valley Oak Drive
Public Safety – Fire	700 Main Street	Water Well #5	500 Niemann Street
Public Safety – Police	702 Main Street	Water Well #6	501 E. Main Street
Corporate Yard	19 E. Baker Street	Water Well #7	700 Main Street
Corporate Yard Garage	19 E. Baker Street	Lift Station 1	811 Walnut Lane
Community Center	201 Railroad Avenue	Lift Station 2	200 East Street
Wastewater Treatment	200 East Street	Lift Station 3	700 Main Street
Spray Fields & Ponds	27999 Co Road 32A	Lift Station 4	100 Myrtle Circle

Table 4: City of Winters Critical Facilities

Table 5 shows the valuation of City owned property in the City of Winters:

Facility	Address	Valuation
Winters City Hall	318 First Street	\$1,273,170 (1,970,345)*
Winters Admin & Finance Bldg.	318A First Street	\$348,374*
Winters Public Safety Facility	700 & 702 Main Street	\$8,500,000*
Winters Community Center & Shed	201 Railroad Avenue	\$1,358,079 (1,428,633)*
Corp Yard, Garage, Office & Tank	19 E. Baker Street	\$724,280 (1,159,175)*
Grant Avenue Commercial Property	Grant Avenue at East Street	\$908,000
Rogers Building		\$207,000
Winters Day Care Center	208 Fourth Street	\$306,719*

Facility	Address	Valuation
Parking Lot	311 First Street	\$220,000
Parking Lot	Railroad Avenue between Abbey & Main Sts.	\$265,000
Pocket Park	23 Main Street	\$220,000
City Park w/ restrooms	401 Main Street	\$115,974 (130,479)*
Rotary Park, Gazebo & Restrooms	201 Railroad Avenue	\$187,105*
Valley Oak Park	702 Valley Oak Drive	
Blue Oak Park	400 East Main Street	\$60,105*
Putah Creek Nature Park	250 and 600 Creekside Way	
Trestle Pedestrian/Bike Bridge	Across Putah Creek at 201 Railroad Avenue	
Well #2	201 East Street	\$38,358 (157,007)*
Water Well #3 & Tank	402 Main Street	\$306,736 (425,411)*
Well #4	702 Valley Oak Drive	\$10,357 (142,218)*
Well #5	West end of Niemann Street	\$25,455 (163,908)*
Well #6	501 East Main	\$23,255 (682,550)*
Well #7	700 Main Street	\$585,546 (833,104)*
Wastewater Treatment Facility	200 East Street	\$153,109 (\$548,686)*
Spray Fields and Ponds	County Road 32A	\$42,701 (618,479)*
Walnut Park	520 Walnut Lane	\$1,597,000
Lift Station 1	811 Walnut Lane	\$26,025*
Lift Station 2	200 East Street	
Lift Station 3	700 Main Street	\$26,025*
Lift Station 4	100 Myrtle Circle	\$197,787*

Facility	Address	Valuation
Lift Station 5	1 PG&E Way	\$30,000

Table 5: Valuation of City Owned Property in the City of Winters

1.5 WEATHER AND CLIMATE

The Central Valley climate can be described as Mediterranean. During the hot, dry, sunny summers, temperatures can exceed 100 degrees F on some days, however more often summer temperatures are in the low 90s. The Sacramento River Delta breeze usually cools overnight temperatures into the 60s. Spring and fall has some of the most pleasant weather in the state. The rainy season typically runs from late fall through early spring and fog season last from November through March. Average annual rainfall is about 17 inches. Table 6 shows the City of Winters weather averages.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average temp. (°F)	46.2	51.2	55.4	61.2	68.2	74.6	77.9	76.7	73.3	65.5	53.8	46.3
High temperature (°F)	54.8	61.3	66.6	74.4	82.9	90.9	95.8	94.3	89.8	80.3	65.0	55.6
Low temperature (°F)	37.6	41.1	44.2	47.9	53.4	58.2	60.0	59.1	56.8	50.7	42.6	37.0
Precipitation (in)	5.1	4.7	3.6	1.0	.64	.12	.03	.05	.26	1.0	2.9	3.5
Days with precip.	10	9	9	5	3	1	0	0	1	3	7	9
Wind speed (mph)	7.1	7.3	8.4	8.6	9.0	9.6	8.9	8.4	7.4	6.4	6.0	6.4
Morning humidity (%)	91	89	86	83	82	78	77	78	77	79	87	88
Afternoon humidity (%)	70	61	53	44	38	32	30	29	31	37	57	67
Sunshine (%)	48	65	74	82	90	94	97	96	93	86	66	49
Days clear of clouds	7	8	10	12	17	22	27	26	24	19	10	8
Partly cloudy days	6	7	9	10	9	6	3	4	4	6	8	6
Cloudy days	19	13	12	8	5	2	1	1	2	6	12	17
Snowfall (in)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 6: City of Winters Weather Averages

See Table 7 for a listing of monthly temperature averages for Winters from 2006-2017:

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
2006	50.53	53.12	51.15	59.27	71.39	78.43	82.27	75.74	73.65	64.19	55.53	48.18	63.62
2007	46.98 ^a	53.09	60.95	62.95	70.82	76.32	79.00	78.84	72.37	63.50	58.28	47.44	64.21
2008	46.10	51.21	58.40	62.33	71.10	76.47	78.66	79.13	74.75	67.19	57.92	45.63	64.07
2009	49.42	50.68	56.79	62.43	72.13	74.60	78.77	78.77	78.53	64.53	55.75	46.71	64.09
2010	47.98	52.71	56.11	57.90	64.05 ^b	74.18	77.15 ^a	74.74	74.32	66.63 ^a	55.98	50.18	62.66
2011	46.39	50.12	53.74	61.20	64.21	71.13	77.23	75.48	77.25	66.55	52.48	48.21	62.00
2012	49.60 ^a	53.97	54.52	61.42	70.00	74.32	76.69	79.15	73.47	66.10	55.83	47.87	63.58
2013	44.84	50.61	58.16	65.82	70.06	75.50	79.27	76.08	73.52	64.02	56.68	46.37	63.41
2014	52.24	54.41	59.35	61.77	70.69	75.80	79.92	77.58	75.63	68.52	55.83	52.45	65.35
2015	49.34	56.88	61.19	61.87	65.81	76.43	79.26	77.95	75.72	70.31	52.17	47.16	64.51
2016	49.48	55.02	57.47	63.37	68.44	75.80	77.69	75.39	72.28	62.61	55.50	45.56	63.22
2017	46.47	52.61	57.97	60.28	68.94	75.88	79.05 ^k	----- ^z	----- ^z	----- ^z	----- ^z	----- ^z	60.36 ^f

Table 7: Davis Monthly Temperature Averages 2006-2017

1.6 ECONOMICS

Industries providing employment: Construction (24%); Agriculture, Forestry, Fishing & Hunting (16%); Retail Trade (10%); Manufacturing (8%); Transportation & Warehousing (8%); Public Administration (4%) and Other Except Public Administration (4%).

Income

- Estimated median household income in 2009: \$64,661 (up from \$48,678 in 2000)
- Estimated aggregate household income in Winters in 2009: \$168,465,452
- Estimated median family income in 2009: \$73,603
- Estimated per capita income in 2009: \$24,261
- Change in median per capita income between 2000 and 2009: +41.6%

Employment Levels

The State of California Employment Development Department reports the following unemployment rates for Winters:

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rate	4.8%	4.8%	5.7%	6.1%	5.8%	6.4%	5.9%	6.5%	8.4%	12.8%

(Note: Annual unemployment data is not available for 2010)

Averages over the past decade include:

2006-**2010**:10.3%
2007-**2011**: 12.8%
2008-**2012**: 11.2%
2009-**2013**: 9.3%
2010-**2014**: 9.6%
2011-**2015**: 12.6%
(Source: AmericanFactFinder)

The following shows the monthly labor force data for the City of Winters from 2010-2016:

Annual Average	Labor Force	Employment	Unemployment	
			Number	Rate
2010	3,600	3,200	400	10.9%
2011	3,600	3,200	400	10.6%
2012	3,300	3,300	300	9.5%
2013	3,300	3,300	300	8.0%
2014	3,400	3,400	200	6.7%
2015	3,800	3,500	200	5.7%
2016	3800	3,600	200	5.1%

SECTION 2.0: HAZARD IDENTIFICATION AND RISK ASSESSMENT

The City of Winters identified hazards that affect the city and developed natural hazard profiles based upon the countywide risk assessment, past events and their impacts (see Figure 4).

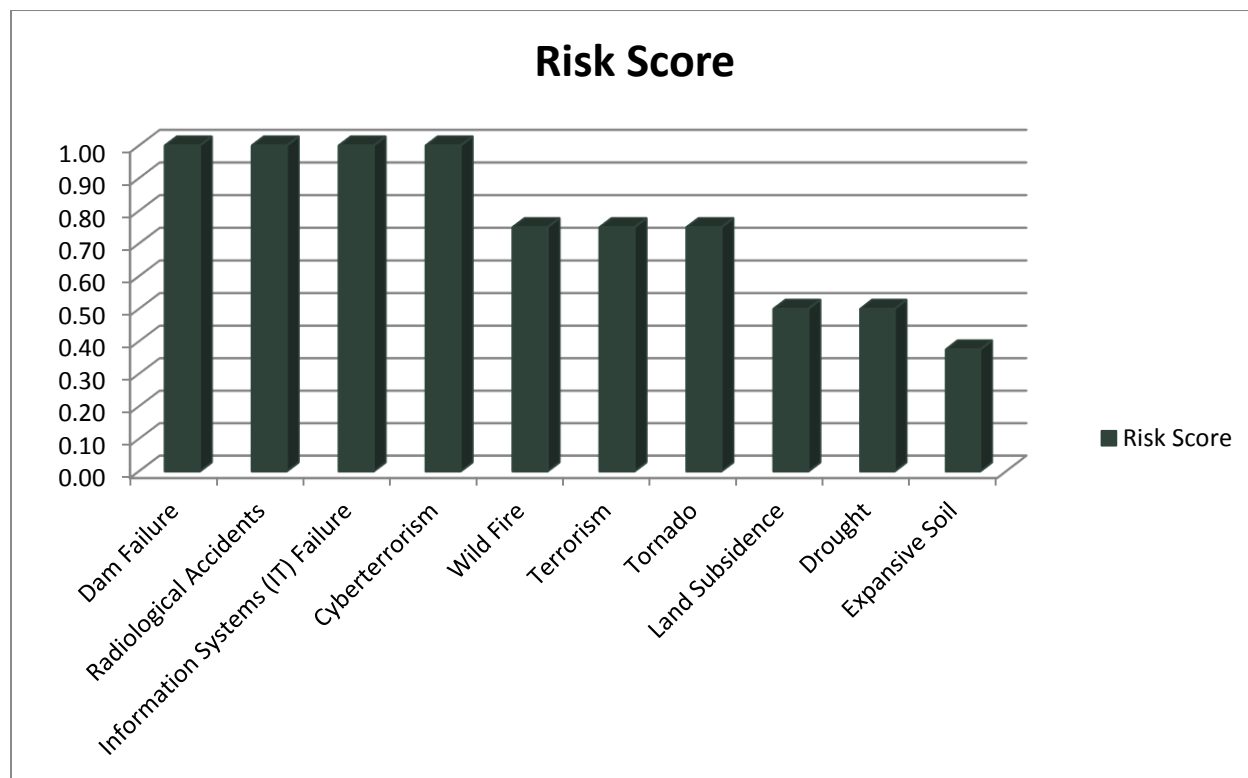


Figure 4: City of Winters Risk Assessment

Definitions for the rankings and a detailed explanation of the hazards can be found in the Hazard Identification and Risk Assessment of the Yolo County Hazard Mitigation Plan (HMP).

2.1 NATURAL HAZARDS

Of the natural hazards profiled in the Yolo County HMP for the Yolo County Operational Area, landslide, drought, and levee failure have been omitted for the City of Winters. There are no landslide prone areas or levees within the city limits, and there is no significant agricultural activity within the city limits. See Table 8 for the probability and extent of each natural hazard profiled for Winters.

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Flooding	Likely	Critical

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Dam Failure	Unlikely	Catastrophic
Earthquake	Likely	Catastrophic
Land Subsidence	Highly Likely	Limited
Severe Weather - Fog	Occasional	Critical
Severe Weather - Tornado	Occasional	Critical
Severe Weather – High Wind	Highly Likely	Critical
Severe Weather – Extreme Heat	Highly Likely	Critical
Severe Weather - Freeze	Likely	Critical
Volcano	Unlikely	Catastrophic
Wildfire	Highly Likely	Catastrophic
Climate Change	Highly Likely	Critical

Table 8: Probability and Extent for Natural Hazards in the City of Winters

2.1.1 FLOODING

Flooding in the City of Winters since the completion of Monticello Dam on Putah Creek has been limited to that caused by overflow from Dry Creek, runoff from the Moody Slough watershed north and west of the City of Winters, and runoff from the business and residential area south of State Highway 128.

Approximately every two to five years, rains producing runoff have caused flooding along the western side of County Road 89 (Railroad Street), from Edwards Street in the City of Winters north to the Moody Slough crossing. Inadequate bridge and channel capacity causes water to overtop

County Road 89. The water then continues eastward to Interstate Highway 505, flooding areas along Moody Slough, Willow Canal, and State Highway 128. The low-lying area west of Winters Cemetery is inundated by local runoff.

One of the most severe floods occurred on December 19-20, 1955, when 7.02 inches of rain were recorded in 48 hours. In the City of Winters several basements and businesses were flooded, as was much of the surrounding agricultural area. Traffic on County Road 89 was halted. This flood was approximately a 20-year event.

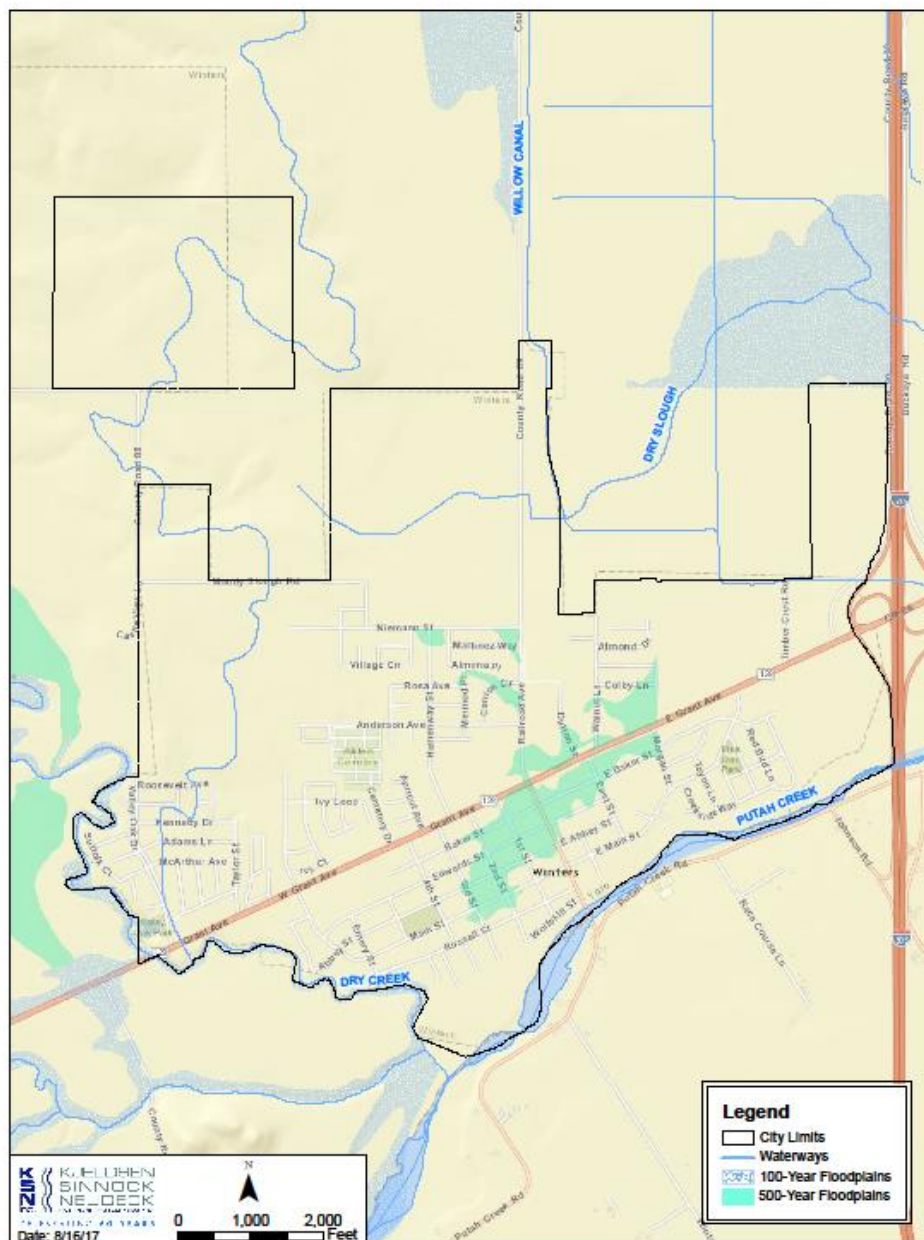


Figure 5: City of Winters Floodplain

2.1.2 DAM FAILURE

Dam failure is the uncontrolled release of impounded water from behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail. Dam failure causes downstream flooding that can affect life and property.

Monticello Dam is a thin arch concrete structure 270 feet high. It impounds a maximum of 1,602,300 acre-feet creating Lake Berryessa in Napa County, 10 miles west of Winters. In the event of failure, Monticello Dam presents a high hazard to downstream areas and extensive loss of life and property would likely occur.

Large uncontrolled water releases into Putah Creek could occur resulting from either a major or partial dam failure, or earthen slides into Lake Berryessa, which could cause overtopping of the dam.

The unstable area adjacent to the dam crest at its contact with the left abutment will be closely monitored by the dam tender during the rainy season and after seismic activity. Landslides into the downstream channel could impound water but releases would be expected to be gradual as the new “dam” was eroded away. Severe storms are not expected to cause rapid rises in the water surface of Lake Berryessa.

See Table 9 for inhabited areas of potential inundation in the City of Winters from the Monticello Dam:

Monticello Dam		
Location	Time From Dam Break To Flooding	Response Actions
SR128 & CR87	0 hr. 20 min.	Evacuate, close roads
City of Winters	0 hr. 30 min	Evacuate, close roads
D.Q. University	1 hr. 45 min.	Evacuate campus
Fairfield School (CR98 & Russell Blvd)	2 hr. 30 min.	Evacuate school
City of Davis (west edge)	2 hr. 45 min.	Evacuate
Sutter- Davis Hospital	3 hr. 00 min.	Evacuate
City of Davis (downtown)	3 hr. 30 min.	Evacuate

Monticello Dam		
Location	Time From Dam Break To Flooding	Response Actions
El Macero (I-80 & Mace Blvd)	4 hr. 15 min	Evacuate, close roads
I-80 & CR105	4 hr. 30 min.	Close roads

Table 9: Inhabited Areas of Potential Inundation

There have been no previous occurrences of dam failure having affected the City of Winters.

2.1.3 EARTHQUAKE

Earthquakes can occur anywhere in Winters. The city lies in the Coast Range-Sierran Block Boundary (CRSBB), where the Midland Fault and Vaca faults are located (see Figure 6). This is the area of Yolo County most critical for earthquakes.

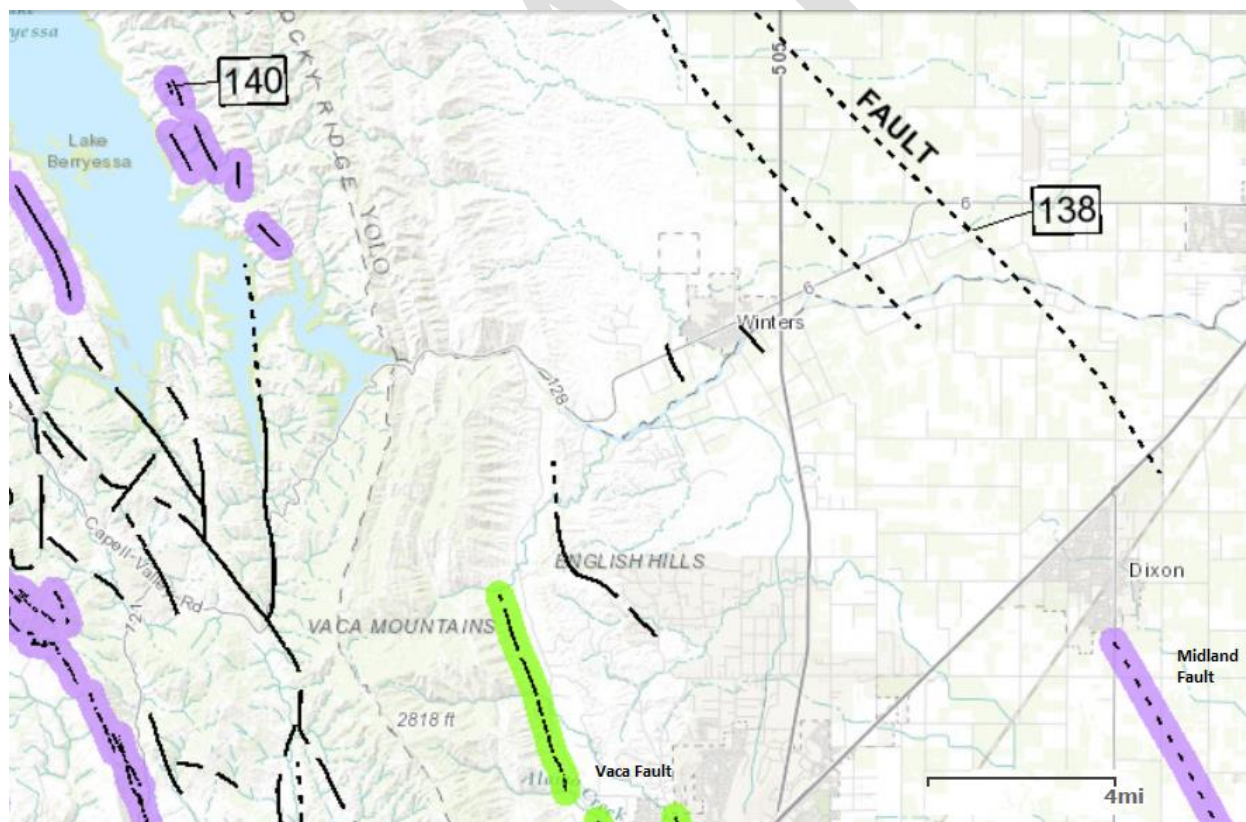


Figure 6 – Fault Lines around Winters

A major earthquake originating along these fault lines or from an unknown fault in the CRSBB could grind the local public infrastructure in Winters to a halt, cause natural gas leaks, water main breaks, and fires, destroying homes and businesses. In 1892, a major earthquake caused severe damage to much of downtown Winters. The earthquake is believed to have originated from the Midland Fault.

Seismic evaluation of Monticello Dam indicates it could withstand an earthquake of Richter magnitude 6.5 with the epicenter located 0.5 miles from the dam. Thus, the dam is considered secure from such an occurrence. The topography of the lake relative to the size of potential slides makes the possibility of dam overtopping very unlikely. Any landslide that would move into the outlet works or spillway area would be especially dangerous to the dam.

Further away, the San Andreas Fault system is located to the west and the Western Sierra Fault system is located to the east of Winters (see Yolo County HMP). Numerous quakes along these faults have been felt in Winters, most recently during the Loma Prieta Earthquake in 1989, but Winters suffered no significant damage.

2.1.4 LAND SUBSIDENCE

Land subsidence could essentially occur anywhere in Winters. See the Yolo County HMP for maps of expansive soils and causes of land subsidence in Yolo County. For Winters, lower expansive soils are found closer to Putah Creek on the southern end of the city while higher expansive soils are found on the northern and eastern sides of the city. These areas are closer to agricultural fields where there is a higher instance of groundwater pumping, a primary cause of land subsidence. Land subsidence could have numerous impacts for Winters, including the settling of homes and businesses as well as the shifting of pipelines that run through the city.

2.1.5 SEVERE WEATHER

HIGH WIND

High wind could occur anywhere in Winters and could be compounded by atmospheric river events. High winds can fell trees, which can cause subsequent damages to cars and structures as well as critical infrastructure such as power lines and water mains throughout Winters.

FOG

Fog can be prevalent in Winters as it is located on the edge of the valley of Yolo County. The impacts from fog in Winters are not expected to be as great as with other cities in Yolo County as no major highways and interstates run through the city. Traffic accidents could still occur within the city limits due to fog.

TORNADO

A tornado could touch down anywhere in Winters. Though tornados in the Central Valley of California are often rare and of low intensity (EF-0 or EF-1), the potential exists for an EF-2 tornado to touch down in Winters as it did in Sacramento in 1978. While unlikely, impacts from such a tornado could be extensive depending on where the tornado touches down and how long it travels. Roofs of structures could be significantly damaged, trees could be knocked over, and cars could be

overturned. A less intense EF-0 or EF-1 tornado could cause flying debris and damage to fences. Tornadoes can also produce hail, which can be damaging to cars and buildings.

EXTREME HEAT

Extreme heat can occur at any location in Winters due to its location in the valley of Yolo County. Temperatures can feel warmer in the city due to the widespread presence of concrete and asphalt, which stores heat longer. Heat waves can cause power outages and can sicken people who are exposed to high temperatures too long, particularly infants the elderly.

FREEZE

Freezing temperatures can occur at any location in Winters. Prolonged exposure to the cold can cause frostbite or hypothermia and can become life-threatening. Infants and the elderly are most susceptible. Pipes may freeze and burst in homes or buildings that are poorly insulated or without heat. Extreme cold can disrupt or impair communications facilities.

2.1.6 VOLCANO

Winters is not located close to any active volcanoes where there is the threat of a lahar flow. Winters could be impacted by ash fall, however, if there were to occur a significant eruption of any of the active volcanoes located throughout the state. Particular areas of concern include the Mt. Shasta, Lassen Volcanic Center, Medicine Lake, and the Clear Lake/Mt. Konocti Volcanic Field. People susceptible to respiratory illnesses would be most impacted by ash fall.

2.1.7 WILDFIRE

Winters is located in the wildland urban interface on the western edge of Yolo County, near the foothills of the Blue Ridge Mountains. The Winters Fire Protection District services this area. Every year from 2014 to 2017, a significant wildfire over 1,000 acres has burned in the foothills and mountains west of Winters. While none of these fires have caused evacuations in the city, the community of Golden Bear Estates outside the city has been issued mandatory evacuations for each fire. Smoke from wildfires around Winters can blanket the city and cause breathing problems for the young and elderly.

2.2 HAZARD RISK ASSESSMENT – TECHNOLOGICAL AND HUMAN-CAUSED HAZARDS

2.2.1 EPIDEMIC/PANDEMIC

Winters can experience the same epidemics and pandemics that occur throughout the rest of Yolo County. Winters was impacted with the 2017 norovirus outbreak, when 39 cases were reported in the Winters Joint Unified School District.

2.2.2 TERRORISM

Terrorism in Winters can occur in many forms, including from a car bomb to an incident at a local downtown festival.

2.2.3 CIVIL DISTURBANCE

Civil disturbance in Winters can occur as a result of numerous different activities including from a police shooting to a general protest.

2.2.4 URBAN CONFLAGRATION

Urban and wildland fire hazards can threaten life and property in Winters. Policies seek to ensure that new development is constructed to minimize potential fire hazards and to provide public education concerning fire prevention.

Urban fires are fires that begin in buildings in urban centers. They are typically localized, but have the potential to spread to an adjoining building, especially in areas where homes and/or business facilities are clustered close together. Structural fire risk in Winters is greatest in older structures and neighborhoods built before modern building codes for fire safety and building systems were in place.



Figure 7: 1800's Fire in Downtown Winters
Source: Yolo County Archives

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SECTION 3.0 MITIGATION STRATEGY

3.1 CAPABILITY ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capability assessment is divided into five sections: regulatory, administrative and technical, fiscal, outreach and partnerships, and other mitigation efforts.

3.1.1 REGULATORY CAPABILITY

The legal and regulatory capabilities of each jurisdiction are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of each jurisdiction. Examples of legal and/or regulatory capabilities can include: a jurisdiction's building codes, zoning ordinances, subdivision ordinances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

City of Winters Regulatory and Planning Capabilities

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Building code	√	√	√	√	√	√
Zoning ordinance	√	√	√		√	√
Subdivision ordinance or regulations	√	√	√		√	
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	√	√	√	√	√	√
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	√	√	√	√	√	√
Site plan review requirements	√	√	√	√	√	√
General or comprehensive plan	√	√	√	√	√	
A capital improvements plan	√	√	√		√	√
An economic development plan	√	√	√	√	√	√
An emergency response plan	√	√	√	√	√	√
A post-disaster recovery plan						√

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
A post-disaster recovery ordinance						
Real estate disclosure requirements	√	√	√	√	√	
Habitat Management Plan	√	√	√	√	√	
Master Drainage, Sewer, Water, & Reclaimed Water	√	√	√	√	√	√
Redevelopment Master Plan	√	√	√			

Source: Steering Committee

Municipal Ordinance

The Winters Municipal Code is current through Ordinance 2017-07, passed November 21, 2017. The following municipal codes and associated ordinances refer to local mitigation and/or associated land use practices and policies.

- Planning Commission – Functions as per Title 7 of the Government Code of the state (Ord. 93-05 §3)
- Disaster and Emergency Organization
- Hazardous Materials – Chapter 11 of Title 6 of Yolo County Code (Ord. 83-07 §1(part))
- Water Service (Ord. 2009-12§1 (part))
- Wastewater (Ord. 80-01§101)
- Backflow and Cross Connection Control – (Ord. 93-002 §1 (part))
- Building Code – Adopted by reference 2007 California Building Code, California Code Volumes 1 & 2 based on 2006 International Building Code including Appendix Chapter 1, Administrative, excluding Sections 104.8, 108.2, 109.3.5 (Ord. 2008-02 §2 (part), editorially amended during 2003 codification, Ord. 2000-03 §2 (part))
- Abatement of Dangerous Buildings – Adopted by reference the Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition as adopted and published by the International Conference of Building Officials (Ord. 2000-03 §2 (part)).
- 15.16 Electrical Code – Adopted by reference 2007 California Electrical Code, California Code of Regulations, Title 24, Part 3, based on the 2005 National Electric Code as published by the National Fire Protection Association... (Ord. 2008-02 §4 (part); editorially amended during 2003 codification; Ord. 2000-03 §2 (part)).
- Fire Code – Adopted by reference 2007 California Fire Code, California Code of Regulations, Title 24, Part 9, based on the 2006 International Fire Code as published by the International Code Council (Ord. 2008-02 §5 (part); Ord. 2003-04 §19 (part); Ord. 2000-03 §2 (part)).
- 15.28 Mechanical Code – Adopted by reference 2007 California Mechanical Code, California Code of Regulations, Title 24, Part 4, based on the 2006 Uniform Mechanical Code as published by the International Association of Plumbing & Mechanical Officials.... (Ord. 2008-02 §7 (part); editorially amended during 2003 codification, Ord. 2000-03 §2 (part)).

- 15.32 Plumbing Code – Adopted by reference 2007 California Plumbing Code, California Code of Regulations, Title 24, Part 5, based on the 2006 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials... (Ord. 2008-02 §8 (part); editorially amended during 2003 codification; Ord. 2000-03 §2 (part)).
- 15.64 Flood Damage Protection – (Ord. 94-04 (part)).
- 15.84 Historical Building Code – Adopted by reference 2007 California Historical Building Code, California Code of Regulations, Title 24, Part 8 (Ord. 2008-02 §11).
- Reference Standards Code – Adopted by reference 2007 California Referenced Standards Code, California Code of Regulations, Title 24, Part 12 (Ord. 2008-02 §14).
- 16 Subdivisions – (Ord. 2009-05 §1 (part)).
- 17 Zoning – Zoning Plan and Land Use Practices (Ord. 17-01).

The following Winters Municipal Codes also provide for hazard mitigation:

- 8.04 – Garbage Service
- 8.12 – Weed Abatement
- 8.16 - Mosquito Abatement

Boards & Commissions

The Winters Planning Commission is comprised of seven commissioners appointed by the Winters City Council. Planning Commission terms are four years in length.

General Plan

The Winters City Council adopted a revised General Plan on May 19, 1992. As required by law, the General Plan addresses the following seven topics or “elements.” These are land use, circulation, housing, conservation, open space, noise and safety. The plan analyzes issues of importance to the community, sets forth policies in text and diagrams for conservation and development, and outlines specific programs for implementing these policies.

A fundamental objective of the Winters General Plan is to provide for an increased residential base and expanded commercial activity without jeopardizing the traditional small town quality and agricultural heritage of the community. To facilitate the achievement of this objective included in the General Plan are the designation and distribution of 16 land use categories.

Specific sections addressing mitigation and safety are: Part 1 – Land Use Diagram and Standards and Part II – Goals, Policies and Implementation Programs, Section 1 – Land Use and Section VII – Health and Safety.

Police Department

The Winters Police Department is a small city police agency with 11 current fulltime peace officers, which consist of a Police Chief, three Sergeants, two Corporals, one detective/SRO, and four Police Officers. Patrol operations are 24/7 and officers respond to all calls for services and emergencies.

Officers conduct traffic enforcement, investigate reported criminal offenses, crime prevention, and accident investigation. Since there are no dedicated detectives/investigators for major cases, patrol officers typically investigate all of their own assigned cases, unless reassigned by a superior officer.

The police department also has a community services officer [CSO] who assists records and police operations with several routine duties. The CSO is trained and certified as a crime scene investigator to properly locate and collect evidence.

The police records division consists of three non-sworn employees, which includes the CSO. They enter the data from police reports, citations, and other information collected from police related matters. Records manage all police reports and submit monthly reports to the Department of Justice.

The police department currently has no officers that are field force trained for a mutual aid response for riot control incidents. There are no stipulations or conditions to be on-call or standby for any such events. Their ability to respond is only according to their availability.

Fire Department

The Winters Fire Department is currently staffed with one Fire Chief, three captains, reserve firefighters and volunteers. In October of 2011, with the hiring of 23 reserve firefighters, the department went to a 24/7 full staffed station utilizing a sleeper program. The Department covers approximately 86 square miles in Yolo County which makes up the City of Winters and Winters Fire District. Services provided by the Winters Fire Department include: fire suppression, fire prevention, training and public education.

Emergency Medical Services are provided by department personnel at the First Responder and Emergency Medical Technician (EMT) level. Paramedic services are contracted through American Medical Response (AMR). Under contract, the AMR responding unit must respond to calls for service within fifteen minutes 90% of the time.

Winters Fire provides and receives mutual aid services to and from three counties; Yolo, Napa and Solano counties. The Fire Department serves a population of approximately 7,000. Winters Fire Station runs approximately 650 calls per year depending on fire season. The City and District are served by one station located at 700 Main St, Winters CA. The Winters Fire Department currently has an ISO Rating of a 4/8B.

Emergency Management & Preparedness

The City adopted an updated Emergency Operations Plan in April 2017. All City department heads have received a copy of the plan and a training reviewing the plan was held for all City staff. Additionally, all City staff with Emergency Operations Center (EOC) duties have received IS-100 and IS-700 training. Select staff has received and will continue to receive additional training as required of their positions. Included in the City's recently constructed Public Safety Facility is a new EOC equipped with telephones, wireless internet access and multiple monitors with both television cable and computer screen capability. City staff were trained in the operation of the new EOC in September 2011 and participated in an exercise in October of 2011.

3.1.2 ADMINISTRATIVE AND TECHNICAL CAPABILITY

The **Administrative and Technical Capability** table identifies the county personnel responsible for activities related to mitigation and loss prevention in the City of Winters. Many positions are full time and/or filled by the same person. A summary of technical resources follows.

City of Winters Personnel Capabilities

Personnel Resources	Department/Position
Engineer and/or Planner with knowledge of land development/land management practices	Community Development and Public Works Department
Professional trained in construction practices related to buildings and/or infrastructure	Community Development Dept./Building Official, Public Works Department
Full time Building Official	Community Development Dept./Building Official
Floodplain Manager	Community Development Department
Emergency Manager	City Manager's Office, Police Department
Other Personnel Resources	Administrative Services, Fire

Source: Steering Committee

3.1.3 FISCAL CAPABILITY

The **Fiscal Capability** table shows specific financial and budgetary tools available to the jurisdictions such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

City of Winters Available Financial Tools and Resources

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Community Development Block Grants	√	√	√	√	√*	
Capital improvements project funding	√	√	√	√	√	
Authority to levy taxes for specific purposes	√	√	√	√	√**	
Fees for water, sewer, gas, or electric service	√	√	√	√	√	
Impact fees for homebuyers or developers for new developments/homes	√	√	√	√	√	
Incur debt through general obligation bonds	√	√	√	√	√**	

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Incur debt through special tax and revenue bonds	√	√	√	√	√**	
Incur debt through private activity bonds	√	√	√	√	√**	
Withhold spending in hazard-prone areas	√	√	√	√	√	

* Subject to grant from State

** Subject to voter approval

Source: Steering Committee

3.1.4 OUTREACH AND PARTNERSHIPS

The City of Winters is fortunate to have a strong relationship with its neighboring communities and the County of Yolo. The State's take of funds from local municipalities has led to increased collaboration and partnerships. The City is working with other agencies to strengthen JPAs already in place and develop other shared services agreements including in the area of emergency services.

In addition to partnerships with other local governmental agencies the City of Winters has also partnered with other community organizations. The City has joint use agreements with the Winters Joint Union School District for the shared use of facilities to offer a variety of programs to residents. The City is also one of the partners in the Winters Community Library, a state of the art facility constructed and made possible through a City, School, and County partnership. Additionally the City has partnered with RISE, Inc. allowing them rent at a reduced rate in a City owned building and hiring their students in a variety of City positions. The City also makes use of student interns from the University of California, Davis and Sacramento State University.

3.2 MITIGATION GOALS

The City of Winters has adopted the hazard mitigation goals and objectives from the Yolo County Hazard Mitigation Plan:

Goal 1:	Protection of life during and after the occurrence of disasters from identified hazards;
Goal 2:	Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
Goal 3:	Protection of emergency response capability
Goal 4:	Protection of developed property, homes and businesses, industry, educational opportunities and the cultural fabric by combining hazard loss reduction with the community's environmental, social and economic needs
Goal 5:	Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives

Goal 6:	Preserving or restoring natural mitigation values such as flood plains.
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Goal 7:	Protection of natural resources and the environment.
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Planning Process Objectives

The following objectives are meant to serve as a metric upon which the Yolo Operational Area Hazard Mitigation Plan can be evaluated. Meeting these objectives assures the Multi Hazard Mitigation Plan as a functional document that identifies short-and long-term strategies, and describes each measure including:

Objective 1:	Identification of individuals, agencies or organizations responsible for project implementation.
---------------------	--

Objective 2:	Projecting a realistic and doable time frame for project implementation.
---------------------	--

Objective 3:	Explanation of how the project will be financed including the conditions for financing and implementation as information is available.
---------------------	--

Objective 4:	Identification of alternative measures, should financing not be available.
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Objective 5:	Maintain consistent support for the implementation of existing hazard mitigation planning goals and objectives for the operational area.
---------------------	--

Objective 6:	Base mitigation strategies on hazards as identified within the Yolo OA Risk Assessment.
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Objective 7:	Provide significant potential for the effective reduction of damage to public and/or private property, or to costs associated with local, state, and federal recovery from future potential impacts.
---------------------	--

Objective 8:	Establish and maintain a benchmark for identifying the most practical, cost effective, socially acceptable, and environmentally sound mitigation solution after consideration of available alternatives.
---------------------	--

Objective 9:	Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential for loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering.
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Objective 10:	Meet applicable permit requirements.
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Objective 11:	Develop mitigation standards for development in hazardous areas.
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Objective 12:	Contribute to both the short-and long-term solution to the hazard vulnerability risk problem.
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Objective 13:	Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation.
Objective 14:	Have manageable maintenance and modification costs.
Objective 15:	When feasible, be designed to accomplish multiple objectives including improvement of life safety, damage reduction, restoration of essential services, protection of critical infrastructure, security of economic development, recovery, and environmental sustainability.
Objective 16:	Whenever feasible, use existing resources, agencies and programs to implement the project.
Objective 17:	Include regional hazard mitigation concerns and strategies

3.3 MITIGATION PROJECTS

The following mitigation projects were identified based on the hazard vulnerability and risk analysis for the City of Winters:

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
All Hazards Public Awareness and Disaster Preparedness	All / Yolo County Office of Emergency Services (OES)	Existing (2005)	Yolo County OES General Fund	Ongoing	Important element of CRS program
Convene Local/Tribal Disaster Councils	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	2020	Disaster Councils are being joined into one OA Coordinating Group
Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	Yolo County and the Cities of Davis, West Sacramento, Winters, and Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Community Warning System	All / Yolo County OES	COMPLETE D (2005)	Yolo County OES General Fund	Completed	These systems are continually updated due to changing technology
Care and Shelter Planning to include People with Disabilities, the Elderly, Access and Functional Needs, and Animals	All / Yolo County Health and Human Services Agency (HHSA)	Existing (2013)	Yolo County OES General Fund	Ongoing	Rapidly changing planning effort due to evolving best practices
Develop Public Health and Mass Care Tiered Response System Countywide	All / Yolo County HHSA	DELETED (2013)	DELETED	Deleted	Major advance in capability within medical and human services communities to meet needs of Yolo County residents
2018 Yolo County Hazard Mitigation Plan Update	All / Yolo County OES	NEW (2016)	PDM, HMGP	2018	Five-year required update
DROUGHT					
Drought Contingency Plan	All / Yolo County OES	Existing (2013)	PDM, HMGP	2018	Ongoing
Drought Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change
FLOODING/DROUGHT					
North Winters Retention Pond	Yolo County/ YCFWCWD/ City of Winters	NEW (2018)	PDM, HMGP	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
EARTHQUAKE					
Non-Structural Mitigation Outreach Program	All / Yolo County Community Services Department	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
FLOODING/LEVEE FAILURE					
Promote Flood Insurance (Cont'd participation in the NFIP)	Yolo County and the Cities of Davis, West Sacramento, Winters, Woodland / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
WILDFIRE					
Fuel Reduction in Local Responsibility Areas	All / Yolo County OES	Existing (2013)	CalFire Grants, Fire Safe Council Grants, HMGP	Ongoing	Ongoing
State Route 128 Fire Prevention	Winters / Fire Department, Yolo County / OES	NEW (2017)	CalFire Fire Prevention Grant, PDM, HMGP	2018	Working with CalTrans and CalFIRE to reduce vegetative fuels
Wildfire Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change

SECTION 4.0: PLAN REVIEW, EVALUATION AND IMPLEMENTATION

The strategies presented are deemed appropriate and effective by recommendation of the City of Winters.

4.1 PLAN ADOPTION

Upon submission to the California Office of Emergency Services (CalOES) for review, and subsequent approval by the Federal Emergency Management Agency (FEMA), the Yolo County Hazard Mitigation Plan will be presented to local government for formal adoption. As appropriate, the adopted plan and accompanying City of Winters Community Profile will then be incorporated into local general plans for integration into organizational policy.

4.2 PLAN MONITORING

The process of hazard mitigation does not end with the completion, approval, and adoption of the Yolo County Hazard Mitigation Plan and the City of Winters Community Profile. Within the lifespan of these documents (five years), local government along with community-based organizations will ensure that the mitigation goals and strategies identified are monitored, that plan administration will continue under a collaborative and cooperative umbrella, and that the document itself will be properly maintained.

The Yolo County Office of Emergency Services, as lead coordination agency for hazard mitigation planning within the Yolo OA, and will assist and support the ongoing collaborative efforts of the City of Woodland, through the established Hazard Mitigation Steering Committee. Specific plan maintenance activities by the Yolo County Office of Emergency Services and the City of Winters may include:

- Distribution of the HMP and Community Profile to all interested parties, including both written and digital formats
- Monitoring of the City of Winters mitigation project activities and dissemination of status reports
- Generation of reports relative to plan status, project management, and revision updates to executive leadership
- Preparations for plan eventual revision and updating

4.3 PLAN EVALUATION

Upon approval and adoption by the City of Winters, the prioritized mitigation strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

The mitigation strategies represented and adopted within this plan are recommendations only, and must be approved and funded in order to be implemented as official mitigation solutions. Ultimately, it is the responsibility of jurisdictional and agency officials within the Yolo Operational Area to undertake project implementation based upon identified mitigation strategies, funding availability, and local need when it arises. The Yolo County Office of Emergency Services will meet with the Hazard Mitigation Steering Committee to evaluate the plan after each update meeting.

4.4 PLAN UPDATE

During the five year update cycle, the Yolo County Office of Emergency Services will hold tri-annual update meetings with the Hazard Mitigation Steering Committee and local stakeholders to discuss revisions to the plan. The Yolo County Office of Emergency Services will continue to hold public meetings after the first and third update meetings annually, and will continue to invite public participation in the update process via updated public surveys.

DRAFT

APPENDIX A: ADOPTION LETTER

DRAFT

APPENDIX I: COMMUNITY PROFILE – YOCHA DEHE WINTUN NATION

DRAFT



This document is a support annex to the
Yolo County Hazard Mitigation Plan

Yocha Dehe Wintun Nation Community Profile

Version 1.0

December 2018



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ACKNOWLEDGEMENTS

The Yocha Dehe Wintun Nation would like to thank those Yolo County Operational Area collaborators and partners who participated in the planning and development of this document.

The official Yolo County Operational Area Hazard Mitigation Steering Committee provided the oversight and dedication to this project that was required and without their commitment; this project would not be possible.

As with any working plan, this document represents planning strategies and guidance as understood as of the date of this plan's release. This plan identifies natural hazards and risks and identifies the hazard mitigation strategy to reduce vulnerability and make the Yocha Dehe Wintun Nation more disaster resistant and sustainable.

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LETTER OF PROMULGATION

December 2018

To: Tribal Citizens of the Yocha Dehe Wintun Nation

The preservation of life and property is an inherent responsibility of tribal leadership. As disasters occur in devastating form at any time, the Yocha Dehe Wintun Nation must provide safeguards which will save lives and minimize property damage through mitigation planning and training. Sound mitigation planning carried out by knowledgeable and well-trained personnel can and will minimize losses.

The Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan (HMP) identifies the hazard risks and vulnerabilities for the Yolo County Operational Area and identifies mitigation projects and actions to help reduce those risks. It provides for the integration and coordination of planning efforts of multiple jurisdictions within Yolo County as well as the Yocha Dehe Wintun Nation and the Housing Authority of Yolo County.

This Yocha Dehe Wintun Nation Community Profile is an extension of the HMP. The content is based upon guidance approved and provided by the Federal Emergency Management Agency and the California Governor's Office of Emergency Services. The intent is to provide direction for the Yocha Dehe Wintun Nation on how to mitigate against the threat of disaster through effective mitigation strategies and initiatives.

Once adopted, the HMP and Community Profile will be reviewed and tested periodically and revised as necessary to meet changing conditions and requirements.

The Yocha Dehe Wintun Nation Tribal Council gives its full support to this Community Profile and urges all tribal citizens and individuals to mitigate against the threat of disaster before they occur.

The Yolo Operational Area Multi-Jurisdictional HMP, including the Yocha Dehe Wintun Nation Community Profile, provides assurances that the Yocha Dehe Wintun Nation will continue to comply with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c), and will amend its plan whenever necessary to reflect changes in tribal or Federal laws and statutes as required in 44 CFR 13.11(d).

Tribal Council

Yocha Dehe Wintun Nation

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SECTION 1.0: INTRODUCTION

1.1 HISTORY

For thousands of years, members of California's Wintun Tribes have been guided by a culture rich with an understanding of medicine, technology, food production and land stewardship. The towns and roads of today were the villages and trade routes of the past. Land was healthy and early communities thrived.

The arrival of missionaries and European explorers forever altered the course of Native people in California. Many Wintun people were enslaved to serve the missions, while abuse and disease further dwindled their numbers. By the 1800s, many ancestors were purged of their homes and hunting lands by opportunists driven by gold and greed. Northern California Native people were decimated by the Gold Rush and federal policies that legalized genocide. During this time the Yocha Dehe population declined dramatically and our ancestors were rendered nearly extinct.

In the early 1900s, the Tribe was forcibly removed from their village by the US government and placed on a federally created rancheria—otherwise known as a reservation—in Rumsey, California. Stranded on barren, non-irrigatable land, they struggled to survive. In 1940, they gained a hard-won relocation to a small parcel of land further south in the Capay Valley, where they managed to cultivate small amounts of food. Without the opportunity to produce more than subsistence levels of crops, ancestors who had lived sustainably for thousands of years became dependent on the US government for survival.

Finally, in the late 1980s, the tide began to turn. Some ancestral lands were restored to the Tribe, providing a land base for housing and economic development. It was at this time that the State of California instituted the California Lottery and the federal government enacted the Indian Gaming Regulatory Act (IGRA). The United States Congress enactment of IGRA in particular provided a means to promote economic development and self-sufficiency with the explicit purpose of strengthening tribal self-governance. This offered the Tribe the opportunity to open Cache Creek Indian Bingo on part of 188 acres of trust land.

Initially, the Tribe knew little about gaming. They focused their resources on building the necessary foundation for tribal government to manage assets generated by the bingo hall. Powered by hard work and determination, the Tribe developed their own management strategy and expanded the bingo hall into the world-class Cache Creek Casino Resort, eventually providing economic development and stability for tribal citizens.

The independence gained from the initial influx of gaming revenue gave the Tribe the wherewithal to reacquire some of their traditional lands, to invest in the future of their children through improved education and to provide philanthropic support for communities in need.

In 2009, the Tribe legally changed their name from the Rumsey Band of Wintun Indians, as they were originally labeled by the federal government, to the Yocha Dehe Wintun Nation, named for their homeland in their ancestral Patwin language. The name change represents an important mark in

time for the people of Yocha Dehe. It connects the Tribe to their heritage and expresses their sense of pride and hope for the future.

1.2 OVERVIEW

The Yocha Dehe Wintun Nation is a federally recognized Tribal government with sovereign jurisdiction and lands within the Capay Valley, in the northwest area of Yolo County. The Yocha Dehe Wintun Nation maintains governmental and commercial operations on both trust and fee lands, ranging from residential housing, a school, a cultural department, to agricultural operations that include an olive mill and organic farms, a casino and hotel resort, a golf club, and an internationally accredited fire department.

The Yocha Dehe Wintun Nation is located in California's Yolo County, 49 miles northwest of Sacramento in the Coast Range along Cache Creek. The Nation possesses over 14,000 acres of land in the Capay Valley, with approximately 1,133 acres of that land owned and held in trust by the United States for the Tribal government's benefit. In 2016, The Tribe received 853 acres of the land that it owns taken into trust by the United States. This will provide more sovereign territory for the existing and future residential and governmental needs of the Tribe's growing population. See Appendix A for maps of the Tribal property and Tribal housing.

Sensitive archaeological sites and cultural resources in the aboriginal territory of the Yocha Dehe Wintun Nation are of great concern especially when they become subject to natural hazards, such as wildfires, flooding and earthquakes. Often these resources are unknown until a disaster hits, making planning difficult. Both known and unknown archaeological and cultural sites are considered sacred knowledge and are thus confidential as they may be at risk should they become public knowledge.

To protect archaeological and cultural sites in the aboriginal area, the Yocha Dehe Wintun Nation has created the Cultural Resource Department (CRD) to protect sacred sites, traditional cultural properties and gathering areas. The CRD maintains a Geographical Information Systems (GIS) Database, which allows the Tribe to monitor cultural resources for a wide area. When a hazard impacts an area, the Yocha Dehe Wintun Nation Fire Department contacts the CRD, giving them an approximate location of the hazard, the CRD then checks the GIS database to locate potential cultural resources that may be impacted by a hazard giving the Fire Department instructions both in and out of the field on the proper protocols that may need to be taken to avoid adverse effects to the site.

1.3 DEMOGRAPHICS

Yocha Dehe Wintun Nation is a sovereign Indian Tribal government recognized by the United States. As a federally-recognized tribal government, Yocha Dehe has the authority to regulate its own people and affairs within its sovereign territory, which consists of trust land owned by the United States and held for its use and benefit. The Tribe's lands (whether held in trust by the United States or owned in fee by the Tribe) are located in the Capay Valley, an agriculturally rich valley in Yolo County, about 45 miles northwest of Sacramento. The Tribe consists of approximately 76 citizens, and is governed by a Tribal Council, comprised of five members, and specifically, a Tribal Chairman, Secretary, Treasurer, and two Members at Large. The Tribe's government is comprised of numerous

departments and committees including a fire department, a school, a cultural center, business operations that include a gaming facility, a gas station, an equestrian center, and an olive mill. The Tribe's sovereign land is home to both Tribal citizens and their families, and the Tribe employs thousands of people who work within the Tribal government and its various agricultural and commercial operations. The employees, tribal citizens, and patrons of Tribal owned facilities are the public which this plan addresses. The tribal citizen population of the Yocha Dehe Wintun Nation was 76 in 2017, with a median age of 38. The average age of Casino guests is 54.

1.4 INFRASTRUCTURE

The Yocha Dehe Wintun Nation houses a wide array of tribal infrastructure.

1.4.1 COMMUNICATIONS

Several telephone companies service the Yocha Dehe Wintun Nation including AT&T, Verizon, Sprint/Nextel, and T-mobile. The local cable TV provider for the Yocha Dehe Wintun Nation is DirecTV. The Yocha Dehe Fire Department has a main data network provided by the casino. There is a secondary circuit at the Community Center provided by Frontier that if by chance the Casino's circuit fails, can be used as a failsafe to the community center. A disaster recovery room at the casino backs up the tribe and casino computers systems. There is no broadcast media, though two print media sources include the Valley Voice and the Yocha Dehe Wintun Nation Community Newsletter.

1.4.2 TRANSPORTATION

The principal highway through the Yocha Dehe Wintun Nation is State Route 16. The two lane state highway runs north to State Route 20 in Colusa County and east to Interstate 505 at the town of Madison ultimately connecting to the City of Woodland.

The Yocha Dehe Wintun Nation is serviced by YoloBus, with connections to Vacaville, Davis, Woodland, and Sacramento. Nine charter busses come to the Casino daily, carrying 65 passengers each.

There are no existing rail lines connecting to the Yocha Dehe Wintun Nation; the Vaca Valley and Clear Lake Railroad that once serviced the valley to Rumsey ceased operations in 1934.

There are no airports at the Yocha Dehe Wintun Nation; the closest airport for passenger service is the Sacramento International Airport, approximately 45 minutes away. The Tribe will set up a helibase on tribal property only for wildland fires. There are no commercially navigable waterways near the Yocha Dehe Wintun Nation, though Cache Creek runs along its border and is used by rafting companies further up the Cache Creek Canyon.

1.4.3 UTILITIES

Commercial electrical power and pressurized natural gas distribution is provided by Pacific Gas & Electric. A high pressure (900 psi) four (4) inch natural gas line provides natural gas service to Cache Creek Casino Resort and all tribal enterprises and extends approximately 7.5 miles to County Road 85 (PG&E Natural Gas Distribution System) to the Casino. The water system is supplied by several underground water wells that supply storage tanks:

- 110k gallon tank: Was added to support landscaping
- 150k gallon tank: Tribal Housing
- Two 1.1 million gallon tanks: Casino

The Casino has a wastewater and sewer treatment plant and the tribal housing, offices, and facilities are serviced by Waste Management. All solid waste is serviced by Waste Management. Tribal housing is on a septic tank system.

1.4.4 HEALTH CARE

The closest hospital to the Yocha Dehe Wintun Nation is Woodland Memorial Hospital, 22 miles away.

Area and regional hospitals include:

- Sutter Davis Medical Center – 30 miles south, in Davis
- NorthBay VacaValley Hospital – 35 miles west, in Vacaville

There is a new tribal clinic located on tribal property. Hours are Mondays 7:30 am - 4:30 pm for health coaching appointments only and Tuesday thru Friday 7:30 am – 6:00 pm for appointments. Services include:

- Health coaching
- Treatment for common illnesses
- Minor injury treatments
- Health assessments
- Management of chronic conditions

1.4.5 EDUCATION

Guided by the Tribe's Strategic Plan for Education, the Yocha Dehe Wintun Academy maintains a rigorous and unique academic program that instills a love of learning for a lifetime of success within today's world, while still upholding our Tribe's core values and cultural traditions.

The Academy staff serves Tribal students on the campus proper and provides educational guidance and support beyond Yocha Dehe. The Academy serves children up to the 8th grade.

Each student has a full range of academic and enrichment program options incorporated into Individual Academic Plans based on assessments. Additionally, students receive individual instrumental music lessons on guitar, flute, Indian flute, and piano, as well as individualized choral and vocal instruction. The Tribe is reviving its language, and the teaching of the Patwin language is integrated into the school's regular curriculum. Teachers take a progressive approach to teaching Patwin in the classroom by utilizing multimedia tactics with iPods, iPads and desktop computers as tools to hear, practice, and strengthen the language.

1.4.6 CRITICAL FACILITIES

Table 1 shows a list of critical facilities for the Yocha Dehe Wintun Nation:

Facility	Address	Value
Three Tiered Maintenance Building	14473 State Route 16	\$1,000,000
Cache Creek Casino Resort	14455 State Route 16	\$50,000,000
Cache Creek Casino Resort Hotel	14455 State Route 16	\$50,000,000
Dam Warehouse	14193 Golf Course Drive	\$1,000,000
Tribal Maintenance Shed	19090 Puhkum Road	\$161,900
Influent Lift Station	14487 State Route 16	\$215,749
Tribal Maintenance Building	19090 Puhkum Road	\$364,500
Mini Mart	14151 Winners Way	\$900,000
Natural Gas Pipeline	14455 State Route 16	\$4,246,863
SÉKA Hills Olive Mill	19326 County Road 78	\$6,209,990
SÉKA Hills Olive Mill Warehouse	19326 County Road 78	\$500,000
SÉKA Hills Olive Mill Warehouse Olive Oil Tank	19326 County Road 78	\$250,000
Parking Garage	14455 State Route 16	\$3,000,000
Standby Generator Facility	14215 Golf Course Drive	\$13,200,000
Thermal Energy Storage Tank	14473 State Route 16	\$5,287,780
Tribal Council Chambers	18960 Puhkum Road	\$3,558,950
Tribal Facilities Office Building	19214 Puhkum Road	\$1,900,000
Tribal Government Offices	18960 Puhkum Road	\$5,865,591
Tribal Propane Tank	18960 Puhkum Road	\$200,764
Yocha Dehe Golf Course	14373 Golf Course Drive	\$20,000,000
Yocha Dehe Golf Course Clubhouse	14373 Golf Course Drive	\$5,000,000
Turf Maintenance Building	14591 Golf Course Drive	\$1,000,000
Waste Water Treatment Facility	14199 Golf Course Drive	\$2,000,000

Facility	Address	Value
Water Treatment Facility	14195 Golf Course Drive	\$5,000,000
Sports Complex Recreation Pavilion	12360 Wintun Circle	\$443,489
Well One	14455 State Route 16	\$30,862
Well Two	14455 State Route 16	\$30,862
Well Three	14455 State Route 16	\$30,862
1.1 Million Gallon Tank	14455 State Route 16	\$929,211
1.1 Million Gallon Tank	14455 State Route 16	\$2,200,00
110k Gallon Tank	14195 Golf Course Drive	\$168,000
Yocha Dehe Fire Department	14170 Golf Course Drive	\$5,636,296
Tribal Water Storage and Treatment	12377 State Route 16	\$200,000
Cultural Center (Tewe Kewe)	12645 State Route 16	\$200,000
Comfort Station	14197 Golf Course Drive	\$1,000,000
Hotel (10 stories, 459 rooms)	14455 State Route 16	\$235,000,000
Tribal Housing: 19 homes, 16 townhouses and 4 duplexes		
Yocha Dehe Employee and Family Health Center	14190 Winner's Way, Suite 600	
Yocha Dehe Wintun Academy	18960 Puhkum Road	\$3,599,133

Table 1: Yocha Dehe Wintun Nation Critical Facilities

1.5 WEATHER AND CLIMATE

The climate of the Capay Valley (Cache Creek Basin), like most of Northern California, is characterized by cool wet winters and hot dry summers. Temperatures range from slightly below freezing in most winters to highs of more than 100 degrees Fahrenheit during the summer. Hard freezes that occur are relatively rare but can damage sensitive plants and trees. Similarly, occasional heat waves occur, especially in July and August. The California Department of Water Resources shows an average

rainfall of 22.88" Maximum 47.05" (1941), Minimum 3.4" (1993). The elevation of Brooks, CA is 294 feet.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average temp. (°F)	46	50	53	58	65	73	77	76	72	64	52	46
High temperature (°F)	57	62	66	73	82	91	96	96	91	81	66	58
Low temperature (°F)	35	38	40	43	49	55	58	57	53	47	39	34
Precipitation (in)	3.82	3.45	2.63	.93	.35	.10	.03	.04	.20	.92	2.56	2.83

1.6 ECONOMICS

The Tribe is the lead private employer in Yolo County with 2,400 employees at Cache Creek Casino Resort, 200 Tribal employees, and 15 Farm & Ranch Operations employees.

SECTION 2.0: HAZARD IDENTIFICATION AND RISK ASSESSMENT

The Yocha Dehe Wintun Nation identified hazards that affect the tribe and developed natural hazard profiles based upon the countywide risk assessment, past events and their impacts (see Figure 1).

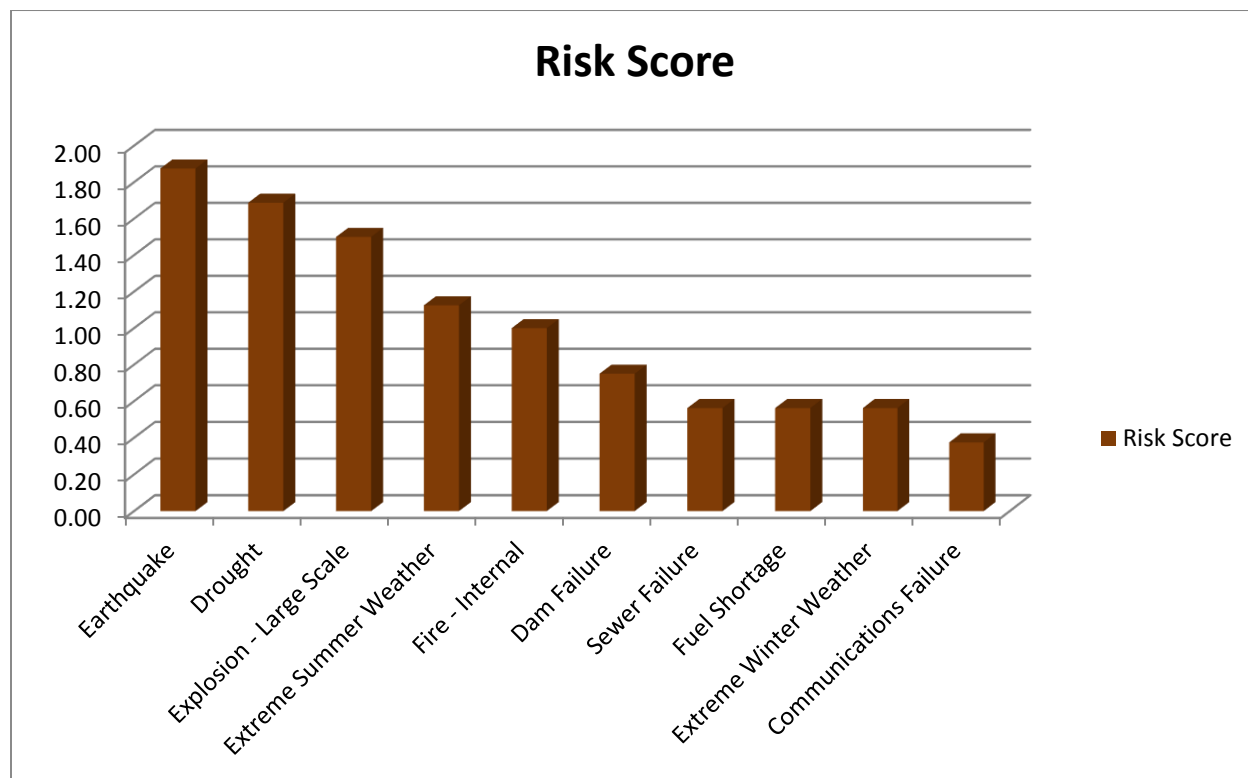


Figure 1: Yocha Dehe Wintun Nation Risk Assessment

Definitions for the rankings and a detailed explanation of the hazards can be found in the Hazard Identification and Risk Assessment of the Yolo County Hazard Mitigation Plan (HMP).

2.1 NATURAL HAZARDS

Of the natural hazards profiled in the Yolo County HMP for the Yolo County Operational Area, landslide and levee failure has been omitted for the Yocha Dehe Wintun Nation. There are no landslide prone areas on tribal property, and there are no levees on tribal land. See Table 2 for the probability and extent of each natural hazard profiled for the Yocha Dehe Wintun Nation.

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Dam Failure	Unlikely	Critical

Flooding	Likely	Catastrophic
Earthquake	Occasional	Critical
Land Subsidence	Occasional	Limited
Severe Weather - Fog	Likely	Limited
Severe Weather - Tornado	Unlikely	Critical
Severe Weather – High Wind	Highly Likely	Critical
Severe Weather – Extreme Heat	Highly Likely	Critical
Severe Weather - Freeze	Likely	Critical
Volcano	Unlikely	Catastrophic
Wildfire	Highly Likely	Catastrophic
Drought	Likely	Critical
Climate Change	Highly Likely	Critical

Table 2: Probability and Extent for Natural Hazards in the Yocha Dehe Wintun Nation

2.1.1 DAM FAILURE

Indian Valley Dam is an earth-filled dam producing a lake of 300,600 acre-feet storage capacity (maximum). The dam is owned and maintained by the Yolo County Flood Control and Water Conservation District and is located in Lake County, northwest of Yolo County, on the North Fork of Cache Creek. Depending upon the rate of discharge following dam failure the area of potential inundation extends along the Cache Creek all the way to Interstate 80 and the Yolo Bypass. The extent of downstream flooding will be dependent upon the degree of structural failure, amount of water impounded at the time of release, level of water already present downstream within the Cache Creek system, and local topography.

According to engineering studies, many Tribal lands would be inundated and rendered uninhabitable or unusable for extended periods of time. Agricultural lands, Tribal housing, government offices, and other facilities would be directly impacted resulting in significant damage and an immediate threat to health and safety. The casino resort complex is situated above any forecasted flooding, although vehicular access along Hwy 16 would be impossible for an extended time period. Additional impacts associated with the full or partial failure of the Indian Valley Dam would include:

- Washout of or severe damage to roadways, bridges, and flood control structures.
- Damage to or destruction of downstream residential, commercial, and institutional facilities and structures, and agricultural lands and products.
- Release of hazardous materials resulting from damage to transmission pipelines and storage tanks.
- Damage to critical infrastructure power, water, sanitation, communication, and information systems and transmission networks due to flooding and impact from water borne debris.
- Isolation of Tribal areas cut off by flooding, limiting access by Tribal and mutual aid response resources for extended periods.
- Debris flows that could form temporary downstream dams that block channel flow, until cleared resulting in secondary flooding events.

The Cache Creek Dam is owned and operated by Yolo County Flood Control and Water Conservation District. It is located 5 miles downstream of the outlet from Clear Lake. The dam is a concrete, gravity-type structure approximately 35 feet in height. The relationship between Clear Lake and the dam is unique in that the dam does not control maximum outflows from Clear Lake. Maximum outflow is controlled by the channel between Clear Lake and the dam. Depending on the time of year and the lake level, failure of the dam could result in flood damage to the downstream areas adjacent to Cache Creek and communities in Yolo County, including the Tribe.

2.1.2 FLOODING

Flooding is a periodic and ongoing concern within Tribal lands. Seasonal rains, coupled with a dependence on limited and relatively unimproved flood control systems to protect areas at risk from inundation places segments of Tribal lands at risk from periodic widespread flooding. The existence of local river systems (i.e. Cache Creek), also contributes to the problem of localized flooding on a periodic basis.

The combination of a narrow stream channel, extensive watershed, steep terrain, and other factors can contribute to extensive flows along the Cache Creek drainage, especially during the winter months when water is released from the Indian Valley Dam to provide space for impounded waters for flood control purposes. Controlled releases of water at the dam may combine with runoff from the watershed within the Capay Valley, resulting in flows exceeding the creek's normal containment capacity and localized flooding.

The impact from any flooding event will vary based upon a number of factors: source of the water; location of water flow; duration of rainfall or source release; topography; presence and/or effectiveness of flood control systems; changes in land use; vegetation; and

- Injury and death associated with people being trapped in rapidly moving waterways or caught unaware during slow rate of rise conditions
- Injury and death for individuals attempting to ford (in vehicles or on foot) submerged roadways
- Damage to Tribal critical infrastructure and essential services through inundation
- Damage to Tribal and Capay Valley roadways, bridges and other transportation structures affecting mobility and the ability for people to evacuate flooded areas
- Release of hazardous materials and start of fires within damaged or affected structures.
- Damage to Tribal and Capay Valley buildings and structures in the pathway of rising flood waters
- Public health hazards from contamination of potable water sources; damage to sanitation systems; long term presence of standing water; vector infestation; and introduction of hazardous materials contaminants.
- Loss of or impact to Tribal agricultural products and crops from inundation
- Impact to Tribal and local economy stemming from loss in agricultural, commercial productivity, and tourism
- Impacts to Tribal society involving long-term interruption of normal activity

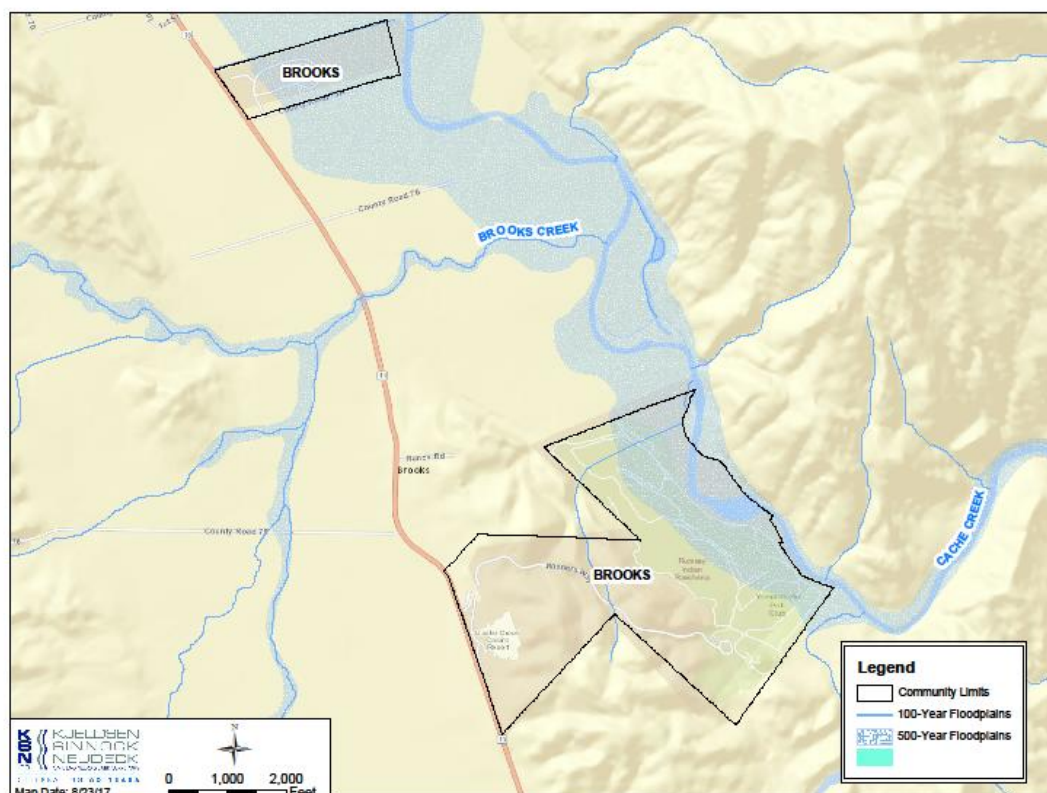


Figure 3: The Yocha Dehe Wintun Nation Floodplain

The specific spots on or near tribal lands that have flooded in the past are as follows:

- YDWN Water Treatment Facility on Wintun Circle in Brooks 7-8 inches deep in 1986
- Current Tribal Housing location
- Various spots of localized flooding across Hwy 16 and O'Leary Ln in Rumsey to Capay at least 6" deep in a 24 hr period

There has been no major flooding on tribal lands since the last plan update in 2013.

2.1.3 EARTHQUAKE

Earthquakes can occur anywhere on Yocha Dehe Wintun Nation property. Tribal lands lie along several inactive fault lines, and are located between the active Hunting Creek Fault to the west and the active Dunnigan Hills Fault to the east (see Figure X).

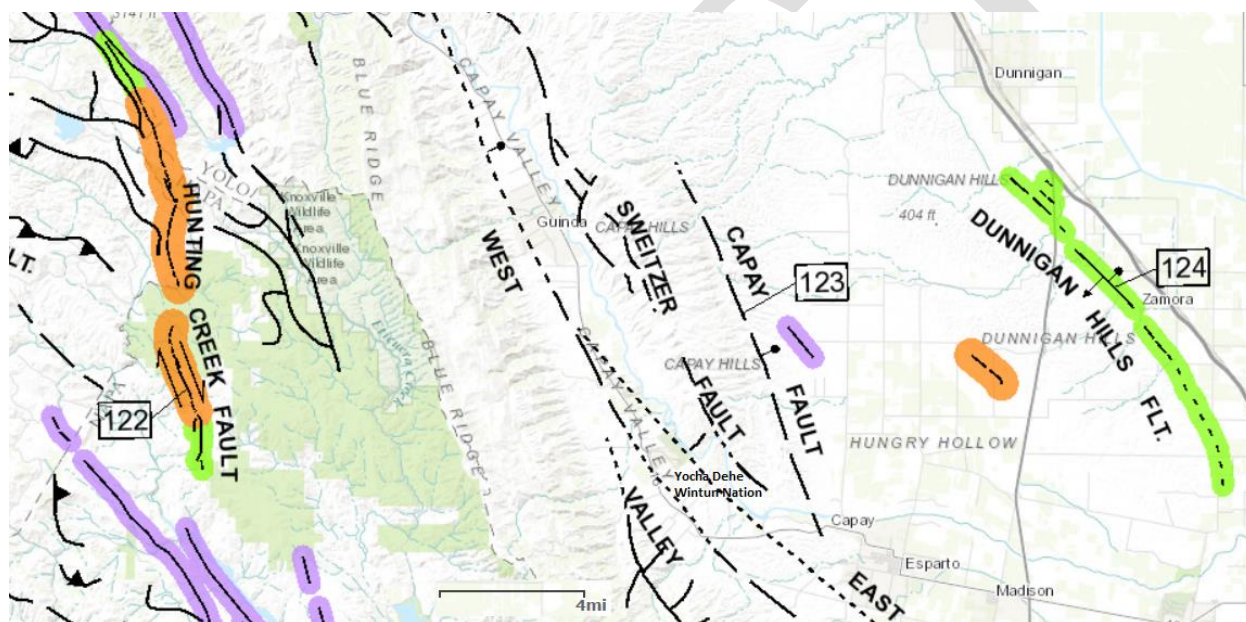


Figure 4: Fault Lines near the Yocha Dehe Wintun Nation
Source: USGS

A major earthquake originating along either of these faults or from other faults in the area could grind infrastructure to a halt.

Further away, the San Andreas Fault system is located to the west (see Yolo County HMP). Numerous quakes along these faults have been felt in Yolo County, most recently during the Loma Prieta Earthquake in 1989, but the Yocha Dehe Wintun Nation suffered no damage.

On August 24th, 2014 the City of Napa suffered a 6.0 magnitude earthquake. Napa is 31 miles from Brooks. Though the earthquake was felt at the Tribal housing, no damage was found.

2.1.4 LAND SUBSIDENCE

Land subsidence could essentially occur anywhere on Yocha Dehe Wintun Nation property. See the Yolo County HMP for maps of expansive soils and causes of land subsidence in Yolo County. Most of the Yocha Dehe Wintun Nation property is located in an area of low expansive soils. The areas with higher expansive soils are those closer to agricultural fields where there is a higher instance of groundwater pumping, a primary cause of land subsidence. Land subsidence could have numerous impacts for the Yocha Dehe Wintun Nation, including the settling of homes and businesses. There have been no observed occurrences of land subsidence so far on Tribal property.

2.1.5 SEVERE WEATHER

HIGH WIND

High wind could occur anywhere on Yocha Dehe Wintun Nation property and could be compounded by atmospheric river events. High winds can fall trees, which can cause subsequent damages to cars and structures as well as critical infrastructure such as power lines and water mains.

All construction on Yocha Dehe Wintun Nation property that was built after 2000 is equipped with hurricane strapping and hardware, which should help to mitigate against high wind impacts.

FOG

Fog can occur in the Capay Valley, though it is less prevalent there than in the lower elevations of Yolo County. The potential for serious accidents can still exist due to fog on State Route 16, which could result in injuries and fatalities to motorists and first responders. In 2017, the Yocha Dehe Fire Department has responded to several fog related accidents.

TORNADO

A tornado could touch down anywhere on Yocha Dehe Wintun Nation property, though the chances are much lower than elsewhere in Yolo County due to the higher elevations. Tornadoes in the Central Valley of California are often rare and of low intensity (EF-0 or EF-1). While unlikely, impacts from such a tornado could be extensive depending on where the tornado touches down and how long it travels. Roofs of structures could be damaged, trees could be knocked over, and cars could be overturned. A less intense tornado could cause flying debris and damage to fences. Tornadoes can also produce hail, which can be damaging to cars and buildings.

All construction on Yocha Dehe Wintun Nation property that was built after 2000 is equipped with hurricane strapping and hardware, which should help to mitigate against tornado impacts.

EXTREME HEAT

Extreme heat can occur at any location on Yocha Dehe Wintun Nation property, and can be higher than the rest of the County due to the heat effect of the Capay Valley. Temperatures can feel warmer in tribal housing and around the Casino due to the widespread presence of concrete and asphalt, which stores heat longer. Heat waves can cause power outages and can sicken people who are exposed to high temperatures too long, particularly infants, and the elderly.

There have been no recorded heat events that have caused major impacts for the YDWN. From 6/16 to 6/24/2017 high temperatures ranged 110-106 degrees throughout the Sacramento area. Yolo County provided the public (including Tribal members) with a cooling center that was opened in the Capay Valley.

FREEZE

Freezing temperatures can occur at any location on Yocha Dehe Wintun Nation property. Prolonged exposure to the cold can cause frostbite or hypothermia and can become life-threatening. Infants and the elderly are most susceptible. Pipes may freeze and burst in homes or buildings that are poorly insulated or without heat. Extreme cold can disrupt or impair communications facilities.

2.1.6 VOLCANO

The Yocha Dehe Wintun Nation is not located close to any active volcanoes where there is the threat of a lahar flow. The Yocha Dehe Wintun Nation could be impacted by ash fall, however, if these were to occur a significant eruption of any of the active volcanoes located throughout the state. Particular areas of concern include the Mt. Shasta, Lassen Volcanic Center, Medicine Lake, and the Clear Lake/Mt. Konocti Volcanic Field. People susceptible to respiratory illnesses would be most impacted by ash fall.

2.1.7 WILDFIRE

The Yocha Dehe Wintun Nation is located along the edge of the wildland urban interface in the Capay Valley. Though located across the Capay Valley from the Blue Ridge Mountains, the Yocha Dehe Wintun Nation could still see impacts from wildfire if one were to sweep down the valley. Most fires start in the Capay Valley but can push south towards tribal housing due to strong north winds. The potential also exists for a grass fire in the hills across Cache Creek to threaten tribal property. Grass fires can also occur in the Capay Valley and along State Route 16 as well. See Figure X for a map of historic wildfires near tribal property.

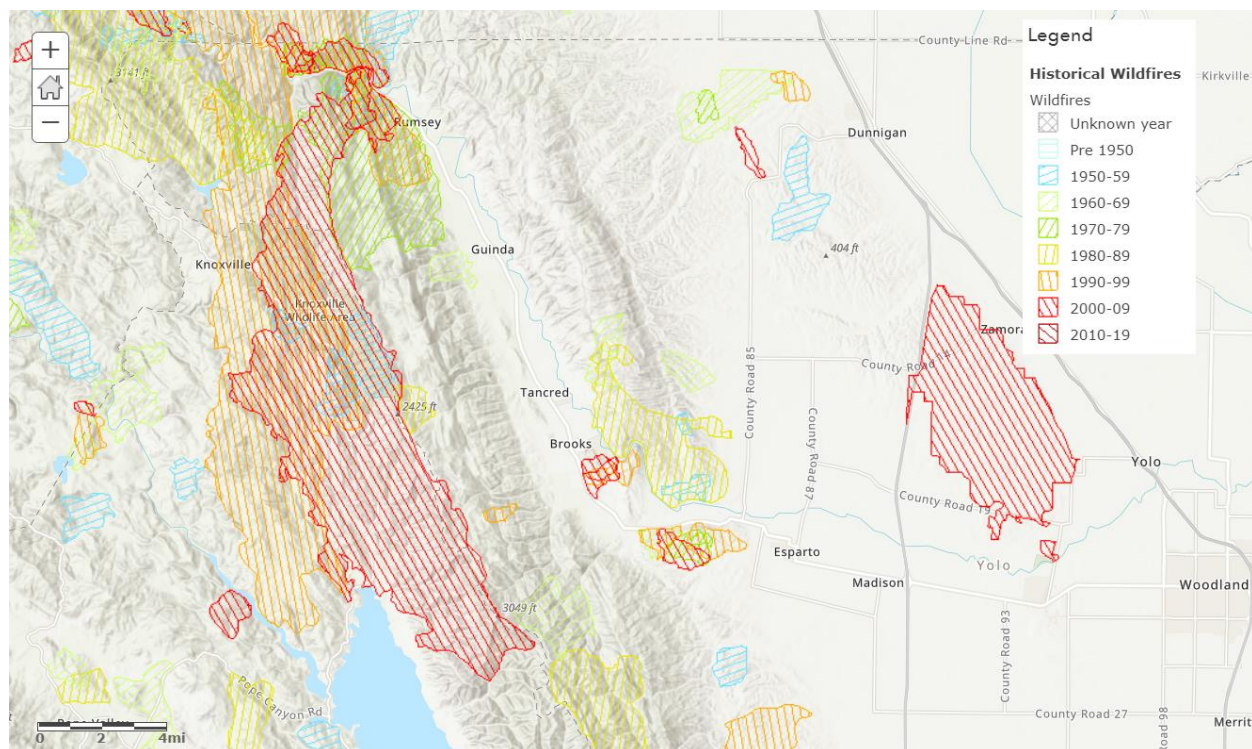


Figure 5: Historic Wildfires
Source: CalFire

2.1.8 DROUGHT

Drought has the potential to impact the olive and grape orchards owned by the Yocha Dehe Wintun Nation, which are an essential part of the tribal economy. Drought can also effect the farm and ranch operations of the Yocha Dehe Wintun Nation by drying out grazing lands for cattle.

Groundwater levels rise and fall seasonally, and are noticeably higher or lower depending on wet versus dry years. During dry years, Cache Creek can run dry which increases Tribal reliance on groundwater resources that are already impacted by a lack of rainfall. The well has gone dry during these times. There is also potential economic impact to the golf course when it cannot be watered. 2014 was the driest year on record for the Tribe. During the drought of 2014, the tribe was unable to irrigate crops and the golf course barely survived. There have been no additional major impacts to the YDWN from any of the drought events that have impacted California since the last plan update or in recent history.

2.1.9 CLIMATE CHANGE

The Tribe was impacted by severe drought from 2012-2014. 2014 was the driest year on record for the Tribe and it is expected with climate change that dry years such as these will continue to occur and worsen. Land use patterns are expected to change, particularly with the rotation of certain Tribal crops. Several acres of land were fallowed in 2014. Climate change also increases the susceptibility of the tribe to wildfire, due to increasingly drier conditions.

2.2 HAZARD RISK ASSESSMENT – TECHNOLOGICAL AND HUMAN-CAUSED HAZARDS

2.2.1 EPIDEMIC/PANDEMIC

The Yocha Dehe Wintun Nation can experience the same epidemics and pandemics that can occur throughout the rest of Yolo County. See epidemic/pandemic profile in the Yolo County Hazard Mitigation Plan. There have been no recorded epidemics or pandemics in tribal history.

2.2.2 HAZMAT INCIDENTS - CHEMICAL

The potential exists for a fuel spill and subsequent fire/explosion to occur on tribal property. Three of four fuel spills occur on average every year but there have been no major incidents.

2.2.3 TRANSPORTATION ACCIDENTS - VEHICLE

State Route 16 passes along tribal land, and the potential exists for a major vehicle accident to occur this highway, resulting in a mass casualty and/or hazmat incident. Over 20 busses travel on Highway 16 daily, carrying up to 60 passengers each.

2.2.4 POWER/UTILITY FAILURE

The Cache Creek Casino and Resort as well as all Tribal properties and the Fire Department have backup generators in case there were to be a major electrical failure. Currently, the Tribe depends on 29 each 3 megawatt paralleling generators equaling 12 megawatts of standby power feeding the property's 21K medium volt loop and we have 1 each 2 megawatt stand-alone generator for their Emergency loads (starts under 10 seconds) in the Casino all backed by 40k+ gallons of Diesel. The Tribe is currently working on a Micro Grid Power Project.

2.2.5 COMMUNICATIONS/IT FAILURE

The Tribe is at significant risk of a communications failure. The Tribe relies on Frontier Communication and currently only has one line into and out of the Casino.

2.2.6 TERRORISM

A terrorist incident could occur at the Cache Creek Casino. Ballards have been built in front of the Cache Creek Casino Resort to protect it from vehicles. The Security Department has been trained and armed against an active shooter. The Fire Department continues to hold quarterly active shooter trainings with the Yolo County Sheriff and Cache Creek Casino Resort Security Department.

2.2.7 CIVIL DISTURBANCE

A civil disturbance could occur at the Cache Creek Casino, though none have occurred in Tribal history. YDWN works with Yolo County Sheriff's Office, Woodland Police Department, and CCCR Tribal Patrol to provide active shooters training and bullet proof vests were purchased for all departments through a grant. The casino also posts security officers at all entrance doors. The Tribe has over 1,400 cameras which are monitored 365 days a year.

2.2.8 URBAN CONFLAGRATION

Wildfires have the little potential to sweep into Tribal housing and the Cache Creek Casino Resort. The Tribe implements firewise measure including defensible space and wildfire resistant construction. YDWN also installed a fire sprinkler system in all buildings on tribal property. The Tribe is protected from wildfire by their internationally accredited fire department which as two fire apparatus staffed with nine firefighters daily.

2.3 PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

The Tribe does not currently participate in the National Flood Insurance Program.

SECTION 3.0 MITIGATION STRATEGY

3.1 CAPABILITIES ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capability assessment is divided into five sections: regulatory, administrative and technical, fiscal, outreach and partnerships, and other mitigation efforts.

Under the Administrative and Technical capability all groups are charged with planning for the future of the Yocha Dehe Wintun Nation. This includes: assessing hazards and vulnerability to Tribally owned properties and assets, recommending mitigation projects to coincide with new and retrofit construction, assessing changes to Tribal ordinance(s) which may be needed to integrate mitigation actions into existing planning initiatives, reviewing existing plans and reports to identify mitigation opportunities, and participation in the Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation planning process. This strategy of incorporating mitigation planning into all planning efforts allows the Tribe to rely on all of its personnel as mitigation planners. Past projects which have been identified and completed using this methodology are included as reference in the Mitigation Projects section of this plan.

3.1.1 REGULATORY CAPABILITY

The legal and regulatory capabilities of each jurisdiction are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of each jurisdiction. Examples of legal and/or regulatory capabilities can include: a jurisdiction's building codes, zoning ordinances, subdivision ordinances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

Yocha Dehe Wintun Nation Regulatory and Planning Capabilities

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Building code	√	√	√	√	√	√
Zoning ordinance	√	√	√	√	√	√
Subdivision ordinance or regulations	√	√	√	√	√	
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	√	√	√	√	√	√
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	√	√	√	√	√	√

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Site plan review requirements	√	√	√	√	√	√
General or comprehensive plan	√	√	√	√	√	
A capital improvements plan	√	√	√		√	√
An economic development plan	√	√	√	√	√	√
An emergency response plan	√	√	√	√	√	√
A post-disaster recovery plan				√		√
A post-disaster recovery ordinance						
Real estate disclosure requirements	√	√	√	√	√	
Habitat Management Plan	√	√	√	√	√	
Master Drainage, Sewer, Water, & Reclaimed Water	√	√	√	√	√	√
Redevelopment Master Plan	√	√	√	√	√	

Source: Steering Committee

Tribal Ordinance

In the exercise of its sovereign authority over its own lands and people, the Yocha Dehe Wintun Nation have enacted their own laws and codes. While the Tribe is the primary regulator of its gaming facility, as Congress envisioned when enacting the Indian Gaming Regulatory Act, the Tribe has agreed under its gaming Compact with the State of California to adhere to certain state regulatory laws that are otherwise inapplicable in connection with the operation of Cache Creek Casino Resort.

The Tribe is currently following the 2016 California Building Standards Code (Cal. Code Regs., Title 24) was published July 1, 2016, with an effective date of January 1, 2017. Those Codes are Part 1, 2, 2.5, 3, 4, 5, 6, 8, 9, 10, 11, and 12.

The Tribe has an Above Ground Building Ordinance that applies to building that are occupied and are more than 75-feet above the lowest level of fire department access.

Community Council

Consisting of all adult citizens of the Tribe, the Community Council is the ultimate body that oversees the Tribal Government.

Tribal Council

The Tribal Council was created by the Tribal Constitution to be the primary governing body of the Tribe. Within the Council there is a Chairperson, Treasurer, Secretary and two At-Large members. Tribal Government at all levels is responsible for providing effective leadership and authority, direction and management of all of the Tribe's operations, whether governmental or commercial.

Cache Creek Casino Resort Board of Directors

The Board of Directors for the Cache Creek Casino Resort, appointed by the Tribal Council, oversees the operations of the Tribe's gaming facility, which is operated for the benefit of the Tribal government.

Tribal Gaming Agency

The TGA has the primary responsibility for the on-site regulation of the gaming activities conducted by the Tribe at its gaming facility located on the Tribe's trust land.

Yocha Dehe Wintun Nation Academy Board of Trustees

The Board of Trustees 1) acts as the governing body of the Academy, setting educational and institutional policies in support of the established mission of the school, which is committed to providing children a well-rounded education while fostering the Tribe's cultural values and traditions; 2) cultivates and protects the health and welfare of the school children, while ensuring the financial health of the school; and 3) maintains standards of ethical practice with regard to the school's operations.

Yocha Dehe Community Fund

The Community Fund 1) manages the business and affairs of the fund; and 2) makes recommendations to the Tribal Council for the approval or denial of grants and 3) ensures total grant distributions do not exceed the amount appropriated in the annual budget.

3.1.2 ADMINISTRATIVE AND TECHNICAL CAPABILITY

The **Administrative and Technical Capability** table identifies the tribal personnel responsible for activities related to mitigation and loss prevention in the Yocha Dehe Wintun Nation. Many positions are full time and/or filled by the same person. A summary of technical resources follows.

Yocha Dehe Wintun Nation Personnel Capabilities

Personnel Resources	Department/Position
Engineer and/or Planner with knowledge of land development/land management practices	Development/Construction Director
Professional trained in construction practices related to buildings and/or infrastructure	Development/Construction Director
Full time Building Official	Development/Construction Director works with County Building Official

Personnel Resources	Department/Position
Floodplain Manager	Maintenance and Operations, Fire Department, works with County Floodplain Manager
Emergency Manager	Fire Department
Grant Writer	Various Departments
Other Personnel Resources	Various Departments

Source: Steering Committee

Property, Farm and Ranch Committee

The Committee 1) supervises and makes recommendations concerning the management, operation, use and development of the Tribe's various lands and properties, whether held in fee or trust; 2) develops and approves both short-term and long-term policies and plans concerning the Tribe's acquisition, use and development of land and property in the Capay Valley; and 3) evaluates, considers and makes recommendations concerning the particular acquisition of land or property within or beyond the Capay Valley.

Cultural Resources Committee

The Committee 1) develops and coordinates tribal programs to preserve, protect and promote the Tribe's traditional cultural values and heritage, and 2) establishes policies and procedures for the preservation of tribal cultural sites and repatriation of items of cultural significance and patrimony to the Tribe.

Health and Wellness Committee

The Committee 1) approves the development of programs and policies dedicated to enhancing the health and wellness of the Tribal community; 2) oversees the affairs of the Tribe's Health and Wellness Department, and 3) makes recommendations to the Tribal Council to address the specific health and wellness needs of the Tribal community.

Facilities and Infrastructure Committee

This Committee oversees the delivery of maintenance and operation services to the Tribal community and Tribal government.

Cache Creek Casino Resort Security and Yolo County Sheriff's Department

The Cache Creek Casino Resort (CCCR) operates a Security Department ("Tribal Security") that is a strategic partner with the Yolo County Sheriff's Department. Currently, there are 123 staffed security officers with 15-30 on-duty 24 hours, seven days a week. The Yolo County Sheriff's Department works closely with CCCR Security in providing unit and zone area protection and with the review of a variety of cases and arrests. Furthermore, Tribal Security has a working relationship with the Yocha Dehe Fire Department, which assists in providing medical training (First Aid, First Responder and Emergency Medical Technician) to all officers. Cache Creek Casino Resort operates a fully functional

Dispatch Center that is used to maintain secure casino operations while serving as the basis for central communications.

Yocha Dehe Fire Commission

The Fire Commission for the Yocha Dehe Fire Department 1) approves policy and procedures for the Tribe's internationally accredited Fire Department; 2) works to ensure the effective delivery of services related to fire suppression, technical rescue, hazmat, and EMS emergency response, fire prevention and emergency preparedness on tribal lands; and 3) assists and responds to other jurisdictions requiring assistance pursuant to fire automatic and mutual aid agreements.

Fire Department

The Yocha Dehe Fire Department (YDFD) plays a vital role in emergency response and life safety throughout the Capay Valley and Yolo County by providing fire protection, technical rescue and paramedic emergency services. YDFD proudly serves as a community partner through mutual aid agreements with other fire departments to protect people and property throughout Yolo County.

YDFD is unique in terms of fire apparatus, personnel qualification/certifications and emergency response vehicle capability. Not only does the YDFD provide basic fire suppression and emergency medical services (paramedic level) to the tribal community, Cache Creek Casino Resort, Capay Valley and other areas of Yolo County, but it is also fully equipped to perform technical rescues, such as swift-water rescue, trench rescue, confined-space rescue, low-angle rescue, vehicle extrication rescue and specialized search and rescue.

YDFD has 32 uniformed and 3 administrative full-time employees and a full complement of equipment including three emergency frontline apparatus (one Type I Engine, one Type III Engine, and one Medium Rescue), plus a reserve Type I Engine, one utility vehicle, one technical rescue trailer, three all-terrain vehicles and three command vehicles.

The YDFD also serves as the Emergency Management entity for the Tribe and as such will be the responsible department for implementation and maintenance of a system designed to identify funding sources, monitor, and closeout any and all mitigation projects undertaken by the Tribe. Progress on mitigation projects will be reported to and reviewed by the Tribal Council on a, not less than, annual cycle.

Emergency Management & Preparedness

The Yocha Dehe Wintun Nation has developed an Emergency Operations Plan (EOP) that addresses the tribal government's planned response to and recovery from extraordinary situations associated with natural, technological, and human-conflict emergencies occurring within or affecting the Tribe. The plan is intended to:

- Facilitate multi-jurisdictional and interagency coordination between the Tribe and local government, operational area (geographical county boundary), state response levels, and appropriate federal agencies in emergency operations.
- Serve as the Tribal emergency management policy, operations, and reference document that is used for pre-event planning as well as emergency operations.

- Be utilized in conjunction with applicable local, state, and federal contingency plans.
- Guide users through the four phases of emergency management: mitigation, preparedness, response, and recovery.
- Identify the components of a Tribal Emergency Management Organization (EMO), and establish associated protocol required to effectively respond to, manage, and facilitate recovery from disasters.
- Establish the operational concepts and procedures associated with field response to emergencies, Emergency Operations Center (EOC) activities, and the recovery process.
- Establish the organizational framework for implementation of the National Incident Management System (NIMS) upon tribal lands. The Yolo County Operational Area Emergency Organization when activated will establish contact with all local and tribal government entities, including incorporated cities, special districts, the Yocha Dehe Wintun Nation, and major state agencies operating within the Yolo County Operational areas.

The Operational Area will:

- Serve as the single focal point for the centralized coordination of the Emergency Response and Recovery Operations during a disaster or emergency affecting Yolo County.
- Serve as a communication link to the State for all local tribal government entities within the Yolo Operational area.
- Provide a facility (Emergency Operations Center) from which County government supports the Yolo Operational Area.
- Coordinate the request for, and prioritize the distribution of, mutual aid resources received through the state and other out of county jurisdictions.

The Yocha Dehe Wintun Nation Emergency Management Organization (EMO), including the Emergency Operations Plan (EOP) and the Tribal Government Emergency Operations Center (EOC), will be activated when an emergency occurs or creates a threat that exceeds the Tribe's capability to adequately respond to and mitigate associated hazards. The scope of an emergency, rather than the type, will determine whether the Tribal EOP and EOC will be activated, and to what level. A Continuity of Operations Plan exists for each tribal department.

3.1.3 FISCAL CAPABILITY

The **Fiscal Capability** table shows specific financial and budgetary tools available to the jurisdictions such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

In addition to the internal funding mechanisms listed below, the Tribe participates with Yolo County in FEMA Mitigation programs such as: the Hazard Mitigation Grant Program, and the Pre-Disaster Mitigation program. With approval of this new Hazard Mitigation Plan for the Yocha Dehe Wintun Nation, additional funding sources and mitigation programs will be assessed for their inclusion to complete the mitigation projects identified in the plan going forward.

Yocha Dehe Wintun Nation Available Financial Tools and Resources

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Community Development Block Grants	√	√	√	√	√*	√
Capital improvements project funding	√	√	√	√	√	√
Authority to levy taxes for specific purposes	√	√	√	√	√**	√
Fees for water, sewer, gas, or electric service	√	√	√	√	√	√
Impact fees for homebuyers or developers for new developments/homes	√	√	√	√	√	√
Incur debt through general obligation bonds	√	√	√	√	√**	
Incur debt through special tax and revenue bonds	√	√	√	√	√**	
Incur debt through private activity bonds	√	√	√	√	√**	
Withhold spending in hazard-prone areas	√	√	√	√	√	√

* Subject to grant from State

** Subject to voter approval

Source: Steering Committee

3.2 COMMUNITY OUTREACH

During weather events, the Tribal government uses the Yolo Emergency Alert and Mass Notification System (Everbridge) to alert Tribal Citizens, Tribal Government Staff, and CCCR Directors and Managers. The Yocha Dehe Fire Department provides emergency response training to tribal citizens and hands out To Go Bags to all Tribal Citizens. For the Yocha Dehe Wintun Nation, members of the public include Tribal Citizens, Tribal Government Staff, CCCR Directors and Managers, and all interested members of the general public. During the plan update process, the Yocha Dehe emergency management point of contact for Yolo County OES participated in plan development meetings and relayed information to tribal members. This gave tribal members the opportunity to provide feedback and participate in the planning process.

3.3 FUTURE DEVELOPMENT

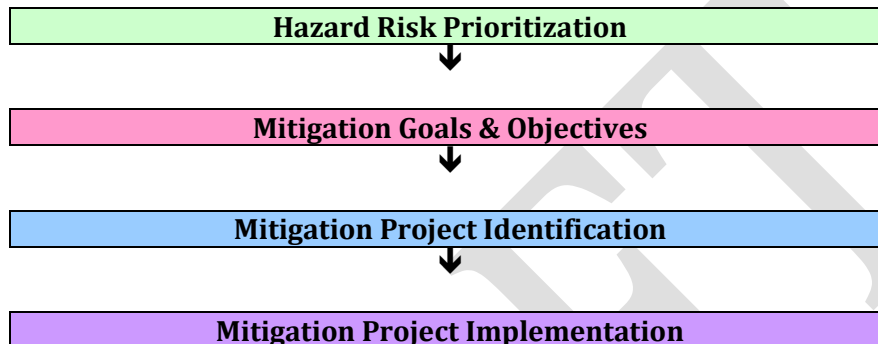
Tribal Planning for future development is performed through a concrescence process and committee approval.

New hotel: CCCR is currently under construction of \$245 million 10-story (459 hotel rooms), and event center with construction and scheduled to be completed in the spring of 2019.

New housing: The Tribal Council has hired an architect to design the new tribal housing development that will be located in the 853 acres of land that was just put into trust. This land is out of the flood plain and development will start in 2020.

3.4 MITIGATION GOALS AND OBJECTIVES

The information developed for the risk assessment was used as the primary basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines explaining what each jurisdiction wants to achieve in terms of hazard and loss prevention.



Goal statements are typically long-range, policy-oriented statements representing jurisdiction-wide visions. Objectives are statements that detail how each jurisdiction's goals will be achieved, and typically define strategies or implementation steps to attain identified goals. Other important inputs to the development of jurisdiction-level goals and objectives include performing reviews of existing local plans, policy documents, and regulations for consistency and complementary goals, as well as soliciting input from the public.

The following represents overarching strategic goals associated with the identification and eventual implementation of appropriate and meaningful hazard mitigation efforts in relation to prioritized hazards and threats confronting the Yolo Operational Area. These goals form the basis for specific supporting process objectives and are shown from the highest priority, at the top of the list, to those of lesser importance.

The establishment of hazard mitigation goals represents both individual and collective strategies that have been mutually agreed upon by the Steering Committee, and have not changed with the 2018 HMP update. Eventually, these goals will be adopted by each participating jurisdiction and public agency as the guiding policy behind local hazard mitigation efforts, in conjunction with other associated principles.

Goal 1:	Protection of life during and after the occurrence of disasters from identified hazards;
Goal 2:	Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
Goal 3:	Protection of emergency response capability

Goal 4:	Protection of developed property, homes and businesses, industry, educational opportunities and the cultural fabric by combining hazard loss reduction with the community's environmental, social and economic needs
Goal 5:	Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives
Goal 6:	Preserving or restoring natural mitigation values such as flood plains.
Goal 7:	Protection of natural resources and the environment.

Planning Process Objectives

The following objectives are meant to serve as a metric upon which the Yolo Operational Area Hazard Mitigation Plan can be evaluated. Meeting these objectives assures the Multi Hazard Mitigation Plan as a functional document that identifies short-and long-term strategies, and describes each measure including:

Objective 1:	Identification of individuals, agencies or organizations responsible for project implementation.
Objective 2:	Projecting a realistic and doable time frame for project implementation.
Objective 3:	Explanation of how the project will be financed including the conditions for financing and implementation as information is available.
Objective 4:	Identification of alternative measures, should financing not be available.
Objective 5:	Maintain consistent support for the implementation of existing hazard mitigation planning goals and objectives for the operational area.
Objective 6:	Base mitigation strategies on hazards as identified within the Yolo OA Risk Assessment.
Objective 7:	Provide significant potential for the effective reduction of damage to public and/or private property, or to costs associated with local, state, and federal recovery from future potential impacts.
Objective 8:	Establish and maintain a benchmark for identifying the most practical, cost effective, socially acceptable, and environmentally sound mitigation solution after consideration of available alternatives.

Objective 9:	Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential for loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering.
Objective 10:	Meet applicable permit requirements.
Objective 11:	Develop mitigation standards for development in hazardous areas.
Objective 12:	Contribute to both the short-and long-term solution to the hazard vulnerability risk problem.
Objective 13:	Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation.
Objective 14:	Have manageable maintenance and modification costs.
Objective 15:	When feasible, be designed to accomplish multiple objectives including improvement of life safety, damage reduction, restoration of essential services, protection of critical infrastructure, security of economic development, recovery, and environmental sustainability.
Objective 16:	Whenever feasible, use existing resources, agencies and programs to implement the project.
Objective 17:	Include regional hazard mitigation concerns and strategies

3.5 MITIGATION PROJECTS

The following mitigation projects were identified based on the hazard vulnerability and risk analysis for the Yocha Dehe Wintun Nation:

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
All Hazards Public Awareness and Disaster Preparedness	All / Yocha Dehe Fire Department	Existing (2005)	Tribal Funds	Ongoing	Important element of CRS program

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Convene Local/Tribal Disaster Councils	All / Yocha Dehe Fire Department	Existing (2013)	Tribal Funds	2020	None
Community Warning System	All / Yocha Dehe Fire Department	DELETED (2005)			These systems are continually updated due to changing technology
Care and Shelter Planning to include People with Disabilities, the Elderly, Access and Functional Needs, and Animals	All / Yocha Dehe Health and Wellness Department	Existing (2013)			Rapidly changing planning effort due to evolving best practices
Develop Public Health and Mass Care Tiered Response System Countywide	All / Yocha Dehe Health and Wellness Department	DELETED (2013)			Major advance in capability within medical and human services communities to meet needs of Yolo County residents
2018 Yolo County Hazard Mitigation Plan Update	All / Yocha Dehe Fire Department	NEW (2016)	PDM, HMGP	2018	Five-year required update
FLOODING					
Flood Wall	Yocha Dehe Wintun Nation / Facilities &	NEW (2017)		Ongoing	To be built on State Route Hwy 16 in front of the

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
	Infrastructure Department				current Tribal Housing to help with flood waters coming onto tribal housing
DROUGHT					
Drought Contingency Plan	All	Existing (2013)			Have monitored ground water over the past 4 years
Drought Mitigation Plan	All / Yocha Dehe Farm & Ranch	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change/ use of surface water for irrigation
EARTHQUAKE					
Non-Structural Mitigation Outreach Program	All / Yocha Dehe Facilities & Infrastructure Department	Existing (2013)			

The Yolo County Office of Emergency Services maintains a spreadsheet on the status of all mitigation measures and projects, including for the YDWN, who will monitor the implementation and closeout of each project. The YDWN will develop a form to track the progress of each project, and will ensure that proper reimbursement procedures are being followed. The YDWN will identify a system for reviewing progress on achieving goals and implementing projects by submitting requests for proposals, invoices, reports, and other documentation for each project. This effort is a significant modification from the 2013 revision of the Yolo County HMP, at which time the YDWN did not undertake any mitigation activities or projects. The only mitigation action of the YDWN that has been implemented as planned since the 2013 update is the 2018 update to the YDWN community profile of the Yolo County Hazard Mitigation Plan.

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SECTION 4.0: PLAN REVIEW, EVALUATION AND IMPLEMENTATION

The strategies presented are deemed appropriate and effective by recommendation of the Yocha Dehe Wintun Nation.

4.1 PLAN ADOPTION

Upon submission to the California Office of Emergency Services (CalOES) for review, and subsequent approval by the Federal Emergency Management Agency (FEMA), the Yolo County Hazard Mitigation Plan will be presented to local government for formal adoption. As appropriate, the adopted plan and accompanying Yocha Dehe Wintun Nation Community Profile will then be incorporated into local general plans for integration into organizational policy.

4.2 PLAN MONITORING

The process of hazard mitigation does not end with the completion, approval, and adoption of the Yolo County Hazard Mitigation Plan and the Yocha Dehe Wintun Nation Community Profile. Within the lifespan of these documents (five years), local government along with community-based organizations will ensure that the mitigation goals and strategies identified are monitored, that plan administration will continue under a collaborative and cooperative umbrella, and that the document itself will be properly maintained.

The Yolo County Office of Emergency Services, as lead coordination agency for hazard mitigation planning within the Yolo OA, and will assist and support the ongoing collaborative efforts of the Yocha Dehe Wintun Nation, through the established Hazard Mitigation Steering Committee. Specific plan maintenance activities by the Yolo County Office of Emergency Services and the Yocha Dehe Wintun Nation may include:

- Distribution of the HMP and Community Profile to all interested parties, including both written and digital formats
- Monitoring of the Yocha Dehe Wintun Nation mitigation project activities and dissemination of status reports
- Generation of reports relative to plan status, project management, and revision updates to executive leadership
- Preparations for plan eventual revision and updating

4.3 PLAN EVALUATION

Upon approval and adoption by the Yocha Dehe Wintun Nation, the prioritized mitigation strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

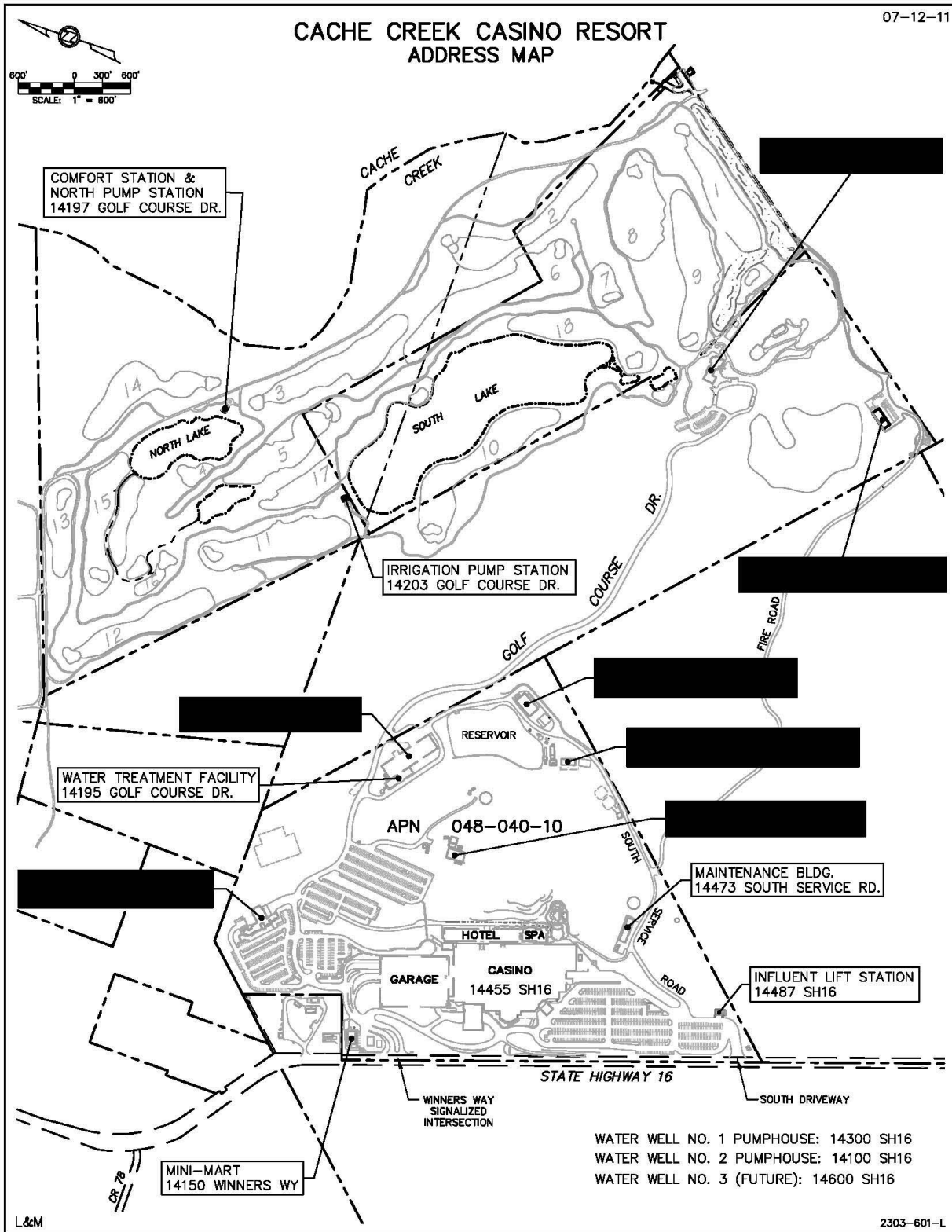
The mitigation strategies represented and adopted within this plan are recommendations only, and must be approved and funded in order to be implemented as official mitigation solutions. Ultimately, it is the responsibility of jurisdictional and agency officials within the Yolo Operational Area to undertake project implementation based upon identified mitigation strategies, funding availability, and local need when it arises. The Yolo County Office of Emergency Services will meet with the Hazard Mitigation Steering Committee to evaluate the plan after each update meeting.

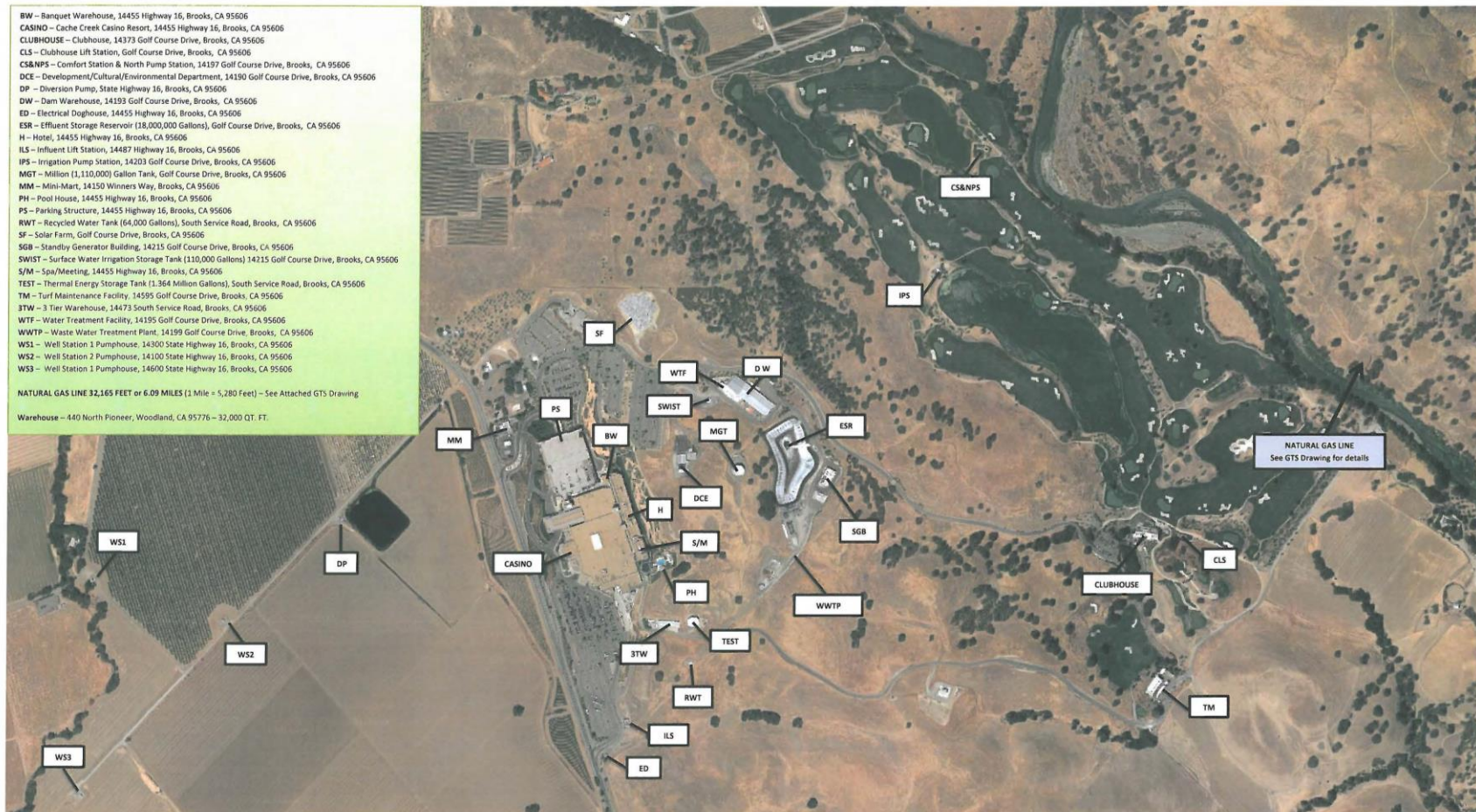
4.4 PLAN UPDATE

During the five year update cycle, the Yolo County Office of Emergency Services will hold tri-annual update meetings with the Hazard Mitigation Steering Committee and local stakeholders to discuss revisions to the plan. The Yolo County Office of Emergency Services will continue to hold public meetings after the first and third update meetings annually, and will continue to invite public participation in the update process via updated public surveys. The Yolo County Office of Emergency Services maintained the 2013 YDWN community profile in conjunction with the YDWN on a limited basis, with significant changes occurring in the schedule for the 2018 update. The formal update process for each iteration of the Yolo County Operational Area Hazard Mitigation Plan starting in 2018 will begin approximately 22 months before the expiration date, approximately March of the year before the plan expiration date in December. The Yolo County Office of Emergency Services will initiate the update process for the plan. They complete the entire plan in house, including the YDWN Community Profile, and work closely with their tribal emergency management contact during the update process. The Yolo County Office of Emergency Services will work with the YDWN to apply for FEMA PDM funding two fiscal year cycles before the plan is set to expire in order to help pay for staff time to update the plan. Any FEMA HMGP funding that falls in that time slot will also be applied for by the YDWN.

APPENDIX A: MAPS

DRAFT







DP – Diversion Pump, State Highway 16, Brooks, CA 95606



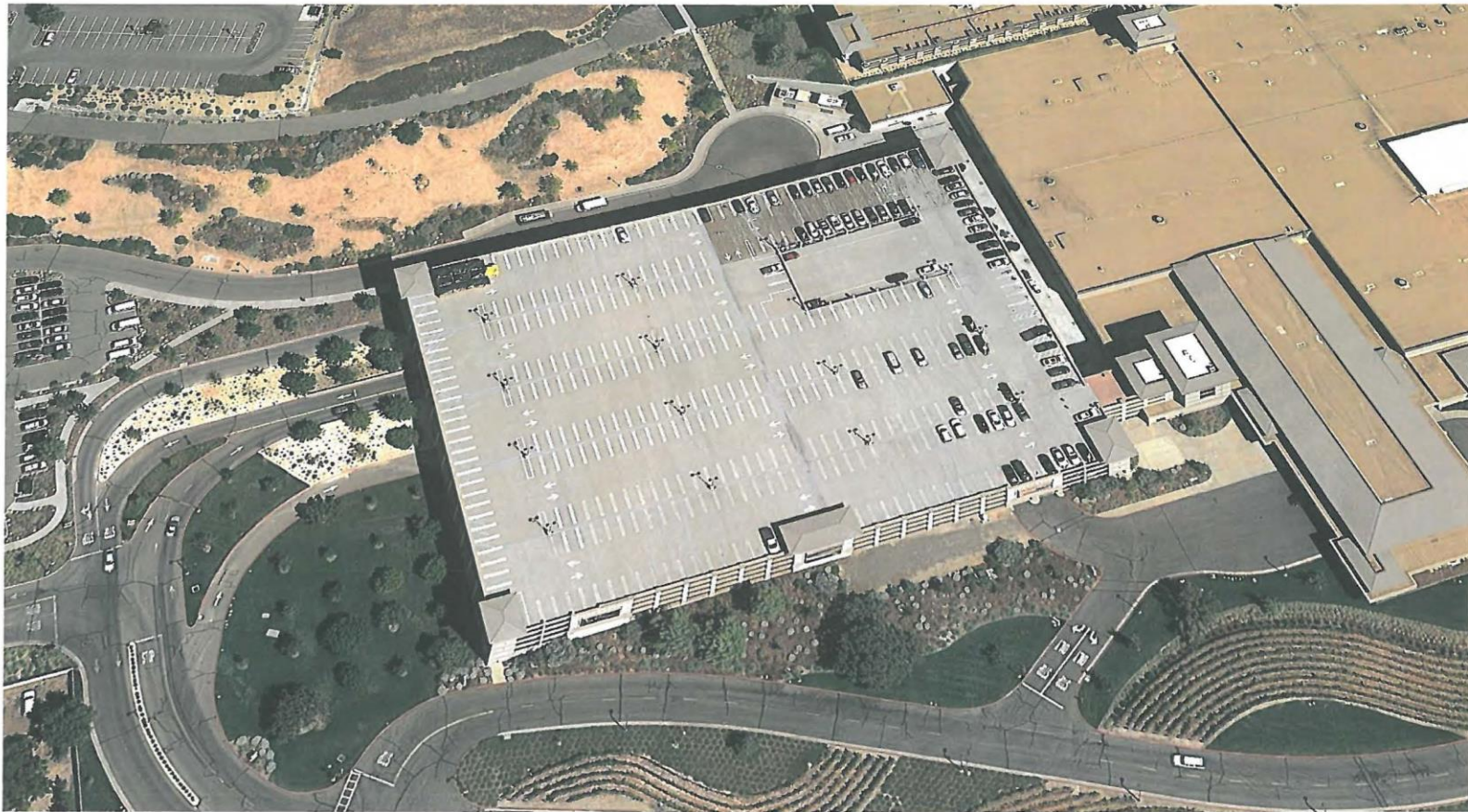
WS1 – Well Station 1 Pumphouse, 14300 State Highway 16, Brooks, CA 95606 - 266 SQ. FT.
WS2 – Well Station 2 Pumphouse, 14100 State Highway 16, Brooks, CA 95606 - 350 SQ. FT.
WS3 – Well Station 3 Pumphouse, 14600 State Highway 16, Brooks, CA 95606 - 250 SQ. FT.



MM - Mini-Mart, 14150 Winners Way, Brooks, CA 95606

Mini-Mart Structure – 3,557.1 SQ. FT.
Car Wash Structure – 873.6 SQ. FT.
Fuel Dispenser Area – 1,976 SQ. FT.
Fuel Island Canopy – 2,552 SQ. FT.
Pergola – 837.5 SQ. FT.

Underground Fuel Storage Tank: 20,000 Gallons Regular / 12,000 Gallons Premium / 10,000 Gallons Diesel



PS – Parking Structure, 14455 Highway 16, Brooks, CA 95606

Parking Garage 1st Floor – 131,627 SQ. FT.

Parking Garage 2nd Floor – 132,707 SQ. FT.

Parking Garage 3rd Floor – 126,227 SQ. FT.

Parking Garage 4th Floor – 131,627 SQ. FT.

Parking Garage 5th Floor – 125,147 SQ. FT.



CASINO – Cache Creek Casino Resort, 14455 Highway 16, Brooks, CA 95606

Casino Floor - 91,348 SQ. FT.

Restaurants - 31,620 SQ. FT. (Including Service Bars and Bars)

Club 88 - 8,561 SQ. FT.

Gift Shop - 1,726 SQ. FT.

Circulation - 6,219 SQ. FT.

Mechanical / Elect. - 11,183 SQ. FT.

Storage - 14,599 SQ.FT. (Most of this has been absorbed into the BOH)

Kitchen - 14,919 SQ. FT.

BOH - 33,703 SQ. FT.

Mezzanine - 17,627 SQ. FT.

Mezzanine Expansion - 4,266 SQ. FT.

Uniform Storage - 1,776 SQ.FT.

Mezzanine Mechanical - 2,797 SQ. FT.

Slot Tech Mezzanine - 1,037 SQ. FT.

Purchasing Trailer – 720 SQ. FT.



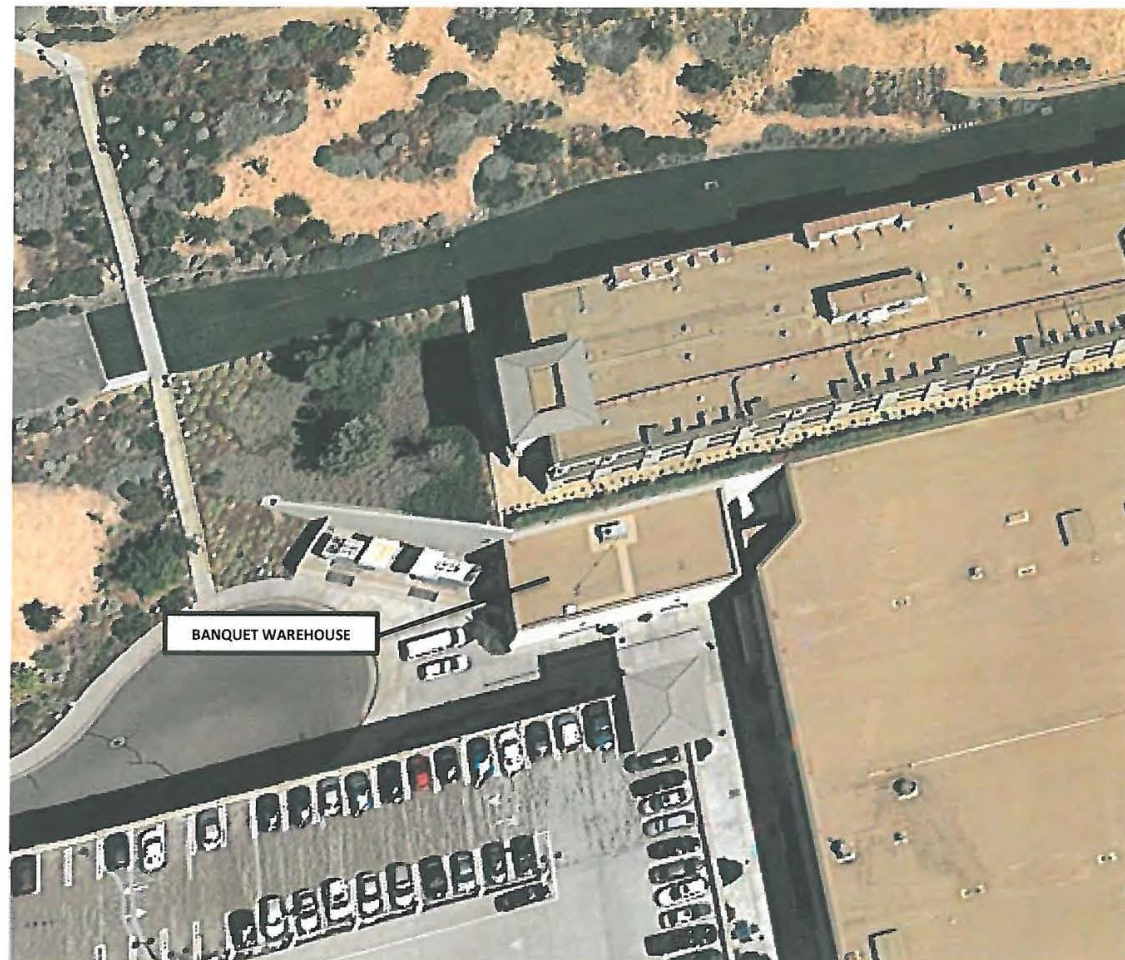
H – Hotel, 14455 Highway 16, Brooks, CA 95606

Hotel 5th Floor – 28,245 SQ. FT.

Hotel 6th Floor – 28,245 SQ. FT.

Hotel 7th Floor – 28,245 SQ. FT.

Hotel 8th Floor – 28,245 SQ. FT.



BW – Banquet Warehouse, 14455 Highway 16, Brooks, CA 95606 – 2,720 SQ. FT.
(2 Stories)



S/M – Spa/Meeting, 14455 Highway 16, Brooks, CA 95606

Spa – 5,642 SQ. FT.
Meeting Rooms – 4,000 SQ. FT.
Pool Building – 781 SQ. FT.
Main Pool – 50,000 Gallons
Water Feature – 1,500 Gallons
Jacuzzi – 5,000 Gallons
Spa Men's & Women's – (2) 1,500 Gallons
Hotel Outdoor Spa – (5) 500 Gallons





SF – Solar Farm (264.5 kW Ground Mounted Photovoltaic Power System), Golf Course Drive, Brooks, CA 95606
1,024 Modules

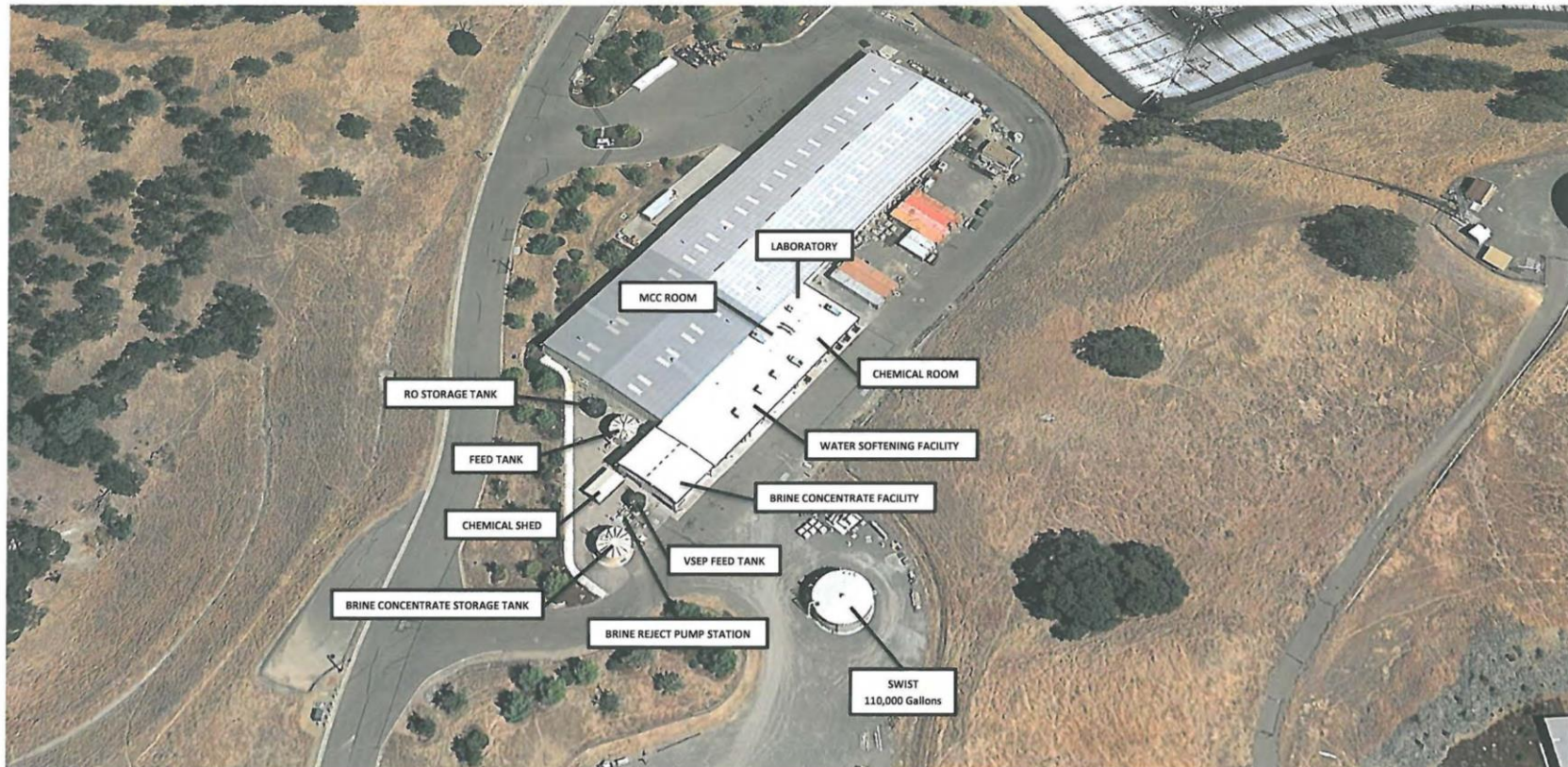


DCE – Development/Cultural/Environmental Department, 14190 Golf Course Drive, Brooks, CA 95606 – 5,616 SQ.FT.



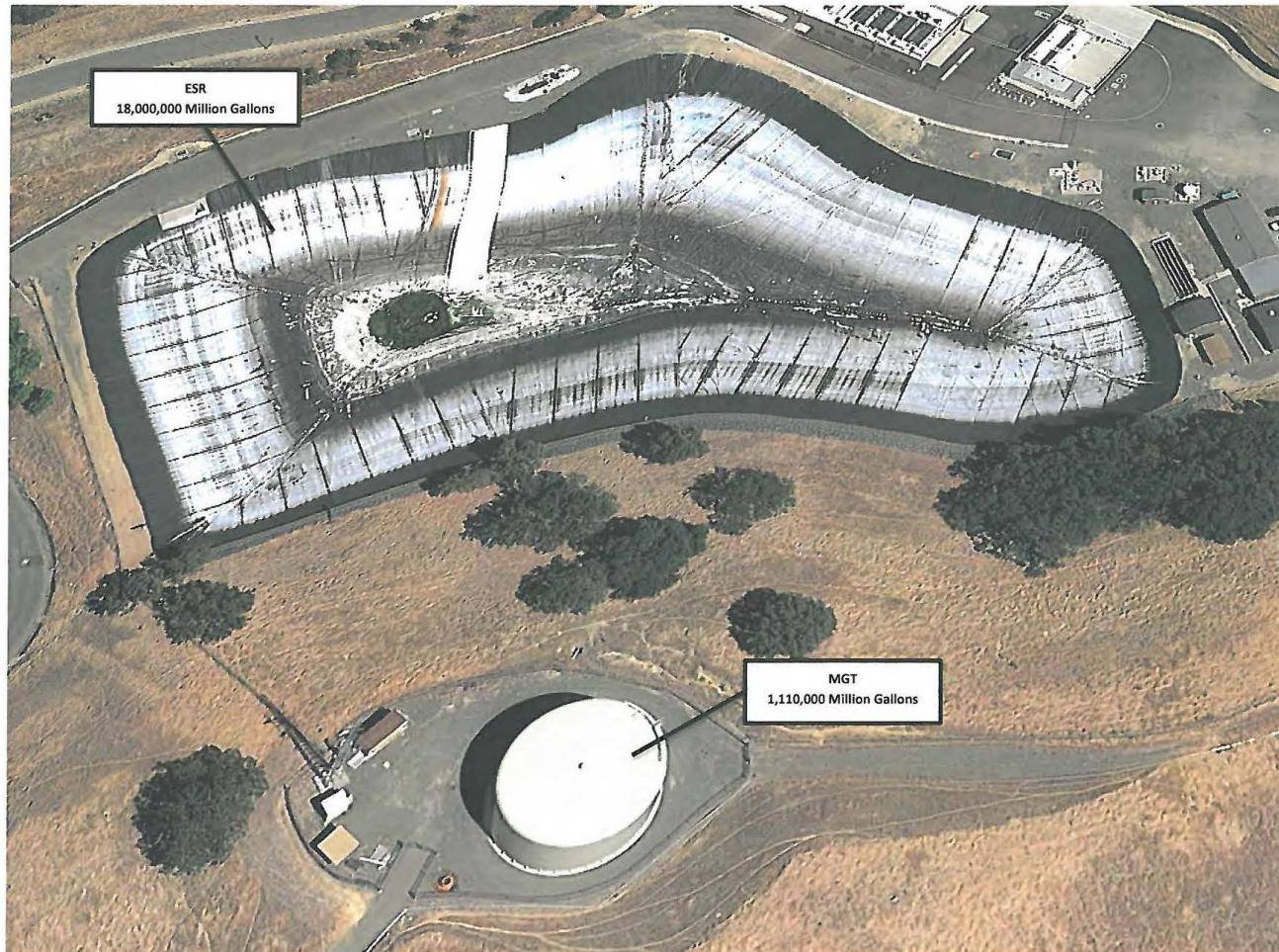
DW – Dam Warehouse, 14193 Golf Course Drive, Brooks, CA 95606 – 44,779 SQ.FT.





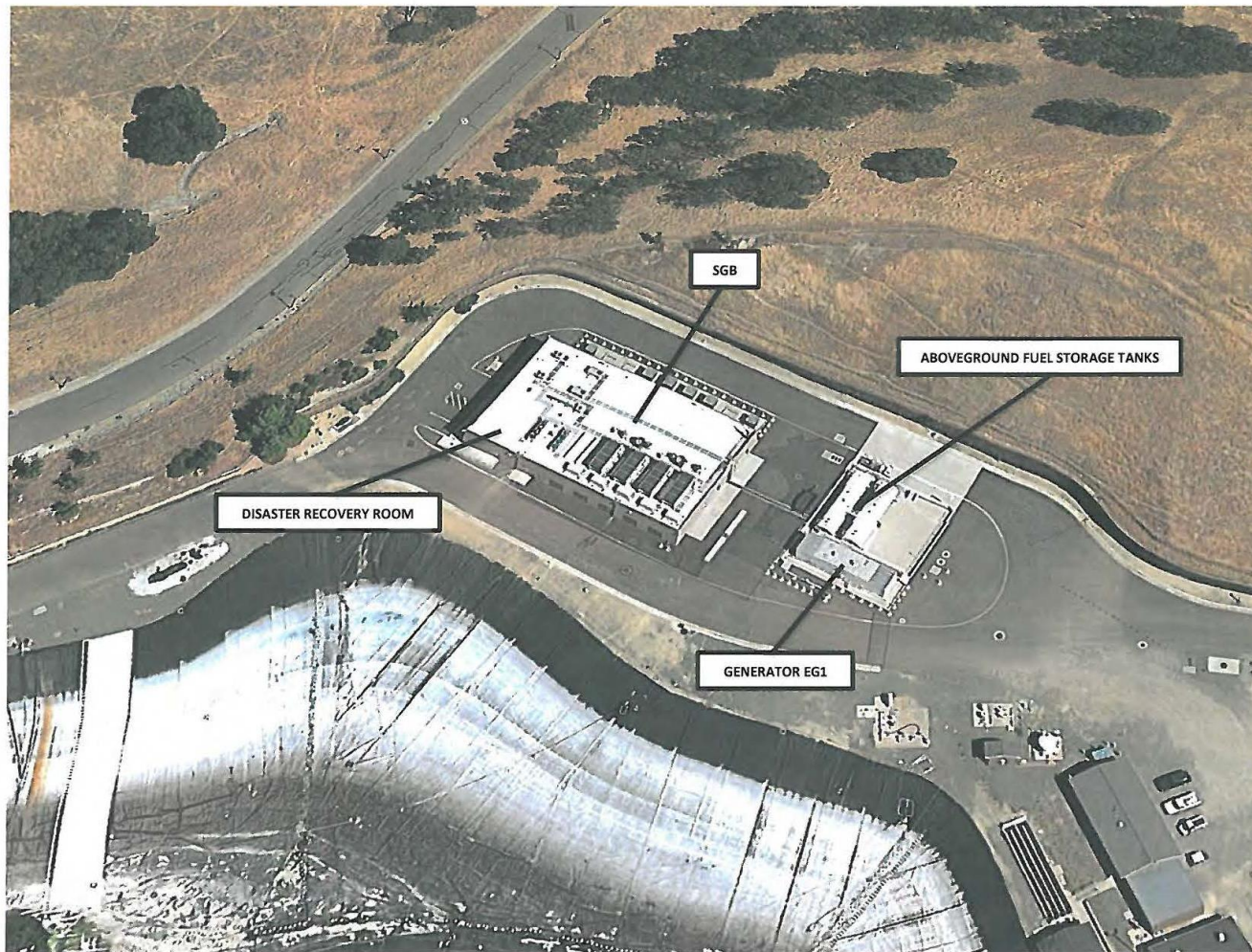
WTF – Water Treatment Facility, 14195 Golf Course Drive, Brooks, CA 95606
Brine Concentrate Facility / Water Softening Facility / Chemical Room / MCC Room / Laboratory – 8,104 SQ. FT.
RO Storage Tank 7,900 Gallons
Feed Tank 20,000 Gallons
Chemical Shed
VSEP Feed Tank 6,200 Gallons
Brine Reject Pump Station
Brine Concentrate Storage Tank 30,000 Gallons

SWIST – Surface Water Irrigation Storage Tank, 14215 Golf Course Drive, Brooks, CA 95606 – 110,000 Gallons

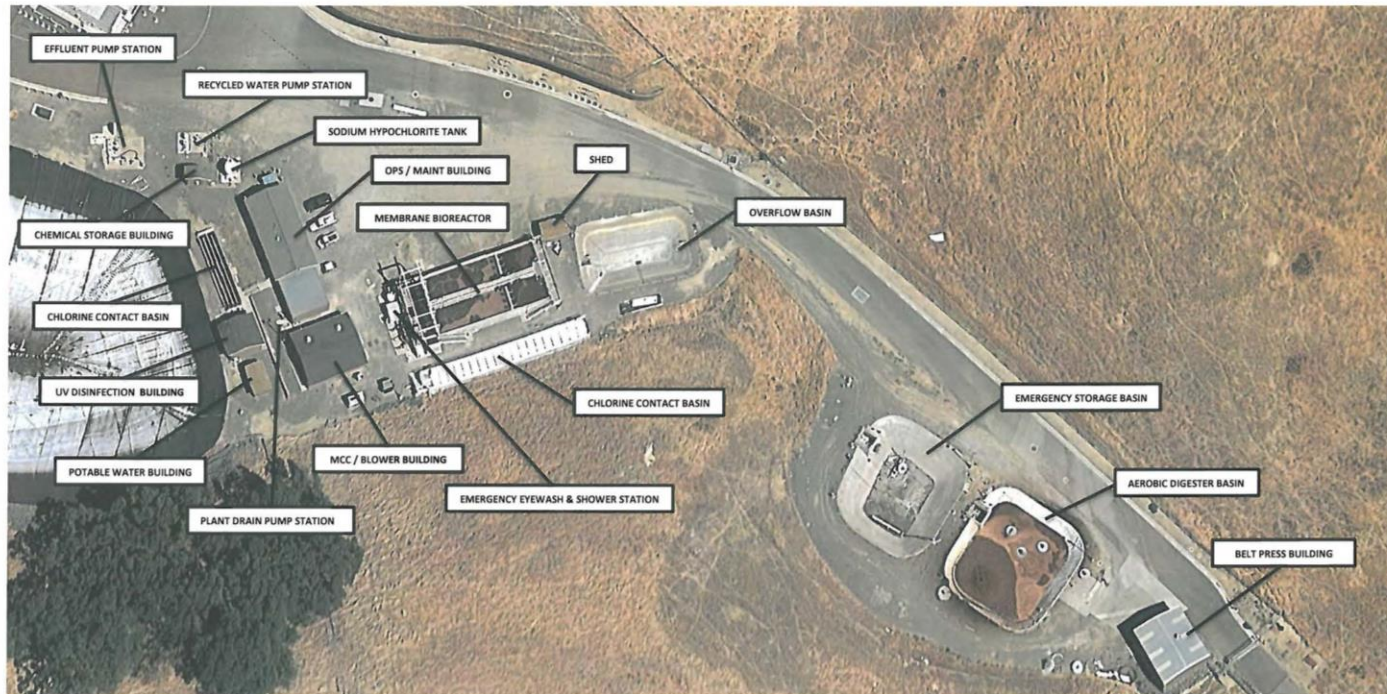


ESR – Effluent Storage Reservoir, Golf Course Drive, Brooks, CA 95606 – 18,000,000 Million Gallons

MGT – Million Gallon Tank, Golf Course Drive, Brooks, CA 95606 – 1,110,000 Million Gallons

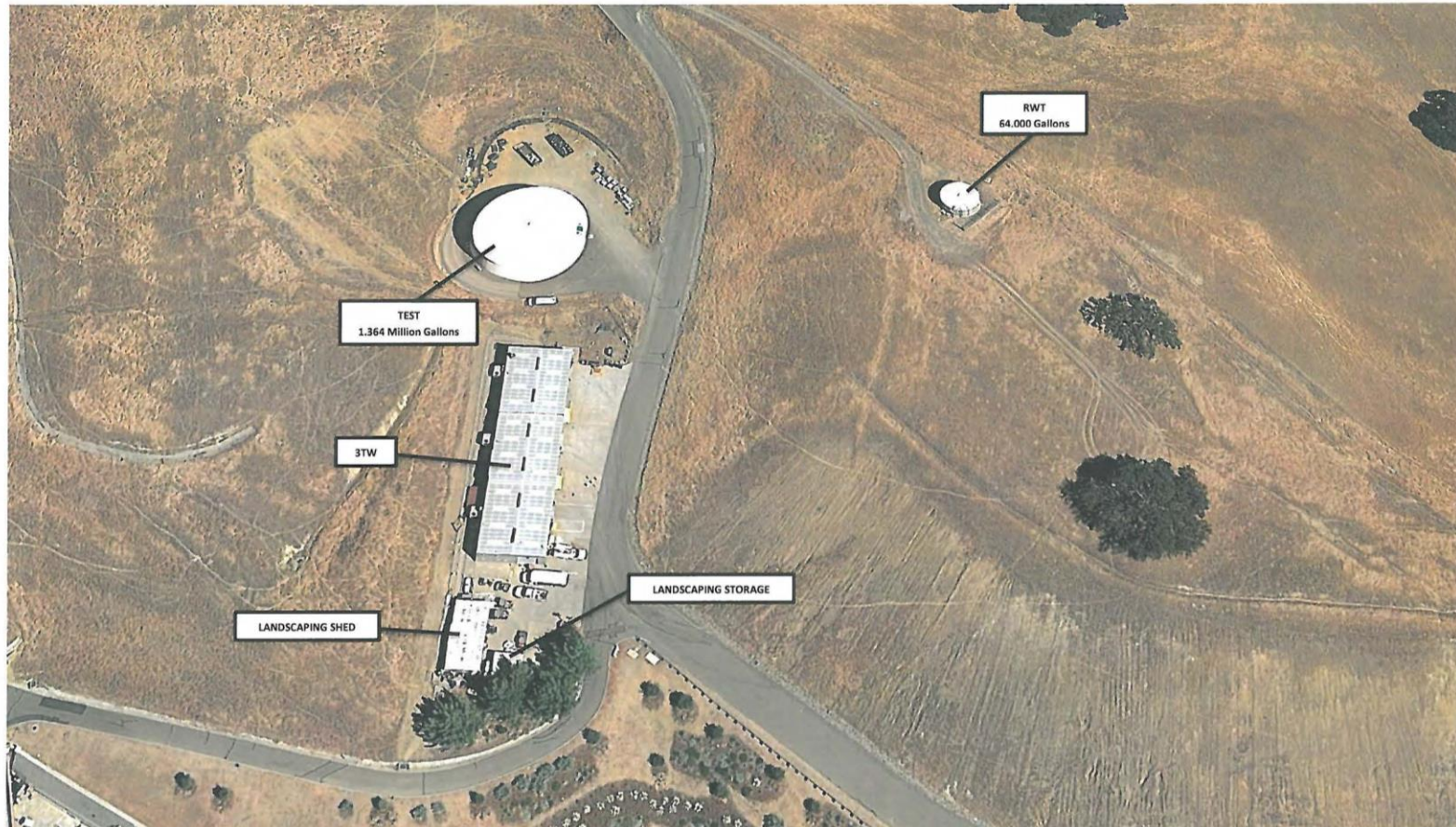


SGB – Standby Generator Building, 14215 Golf Course Drive, Brooks, CA 95606 – 9,301 SQ.FT.
Above Ground Fuel Storage Tank – (2) 20,000 Gallon Red Dyed Diesel
Generator EG1 – 576 SQ.FT.



WWTP – Waste Water Treatment Plant, 14199 Golf Course Drive, Brooks, CA 95606

Operations/Maintenance Building – 1,584 SQ. FT.
MCC/Blower Building – 1,124.8 SQ. FT.
Plant Drain Pump Station
Potable Water Building – 137.75 SQ.FT.
UV Disinfection System Building – 400 SQ.FT.
Chlorine Contact Basin – 648 SQ.FT.
Chemical Storage Building – 77 SQ.FT.
Effluent Pump Station
Recycled Water Pump Station
Sodium Hypochlorite Tank 2,500 Gallons
Membrane Bioreactor/Permeate – 3,615.84 SQ. FT.
Emergency Eyewash & Shower Station – 70 SQ.FT.
Chlorine Contact Basin – 1,320 SQ.FT.
Shed – 128 SQ.FT.
Overflow Basin – 60,000 Gallons
Emergency Storage Basin – 110,000 Gallons
Aerobic Digester Basin – 110,000 Gallons
Belt Press Building – 960 SQ. FT.



TEST – Thermal Energy Storage Tank, South Service Road, Brooks CA 95606 – 1.364 Million Gallons

RWT – Recycled Water Tank, South Service Road, Brooks CA 95606 – 64,000 Gallons

3TW – 3 Tier Warehouse, 14473 South Service Road, Brooks CA 95606 – 5,838 SQ.FT.

Landscaping Shed – 640 SQ.FT.

Landscaping Storage – 224 SQ.FT.



ILS – Influent Lift Station, 14487 Highway 16, Brooks, CA 95606 – 1,945 SQ. FT.
MCC Building / Equipment Storage Room, 14487 Highway 16, Brooks, CA 95606 – 300 SQ. FT.
ED – Electrical Doghouse, 14455 Highway 16, Brooks, CA 95606 – 300 SQ. FT.



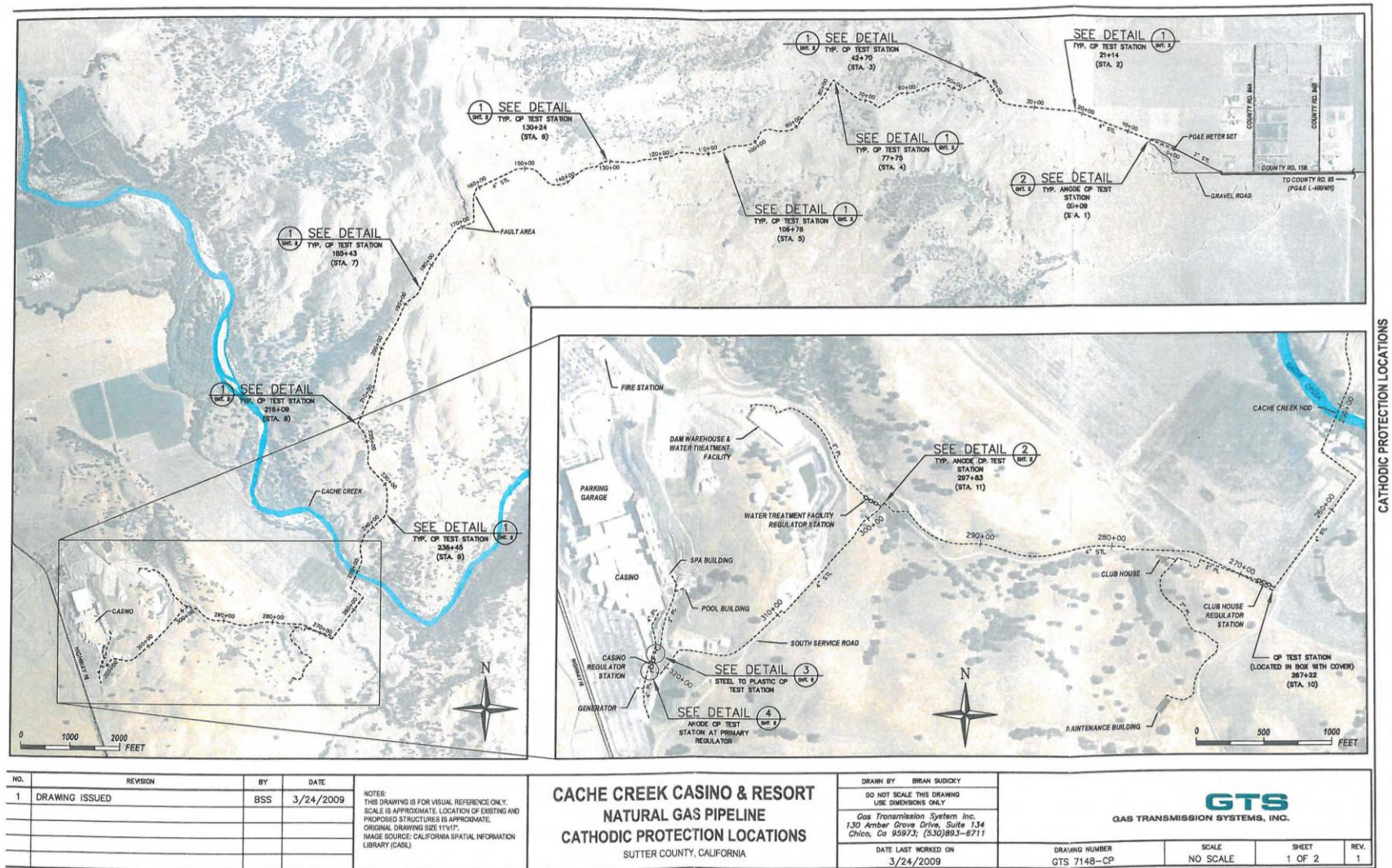
CLUBHOUSE – Clubhouse, 14373 Golf Course Drive, Brooks, CA 95606 – 19,951 SQ.FT.
CLS – Clubhouse Lift Station, Golf Course Drive, Brooks, CA 95606

TM – Turf Maintenance Facility, 14595 Golf Course Drive, Brooks, CA 95606 – 7,529 SQ.FT.
Fertilizer Storage Building – 304 SQ.FT.
Chemical Shed – 80 SQ.FT.
Equipment Wash Station Canopy – 1,272 SQ.FT.
Equipment Storage Shed – 2,000 SQ.FT.
Equipment Shed A – 682 SQ.FT.
Equipment Shed B
Above Ground Fuel Storage Tank – 1,000 Gallon Regular & 20,000 Gallon Diesel
Fuel Storage Tank Canopy – 700 SQ.FT.



CS&NPS – Comfort Station & North Pump Station, 14197 Golf Course Drive, CA 95606 – 1,022 SQ.FT.

IPS – Irrigation Pump Station, 14203 Golf Course Drive, CA 95606 – 945 SQ.FT.



APPENDIX B: ADOPTION LETTER

APPENDIX J: COMMUNITY PROFILE – HOUSING AUTHORITY OF THE COUNTY OF YOLO

DRAFT



This document is a support annex to the
Yolo County Multijurisdictional Hazard
Mitigation Plan

The Housing Authority of the County of Yolo Community Profile

Version 1.0

December 2018



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ACKNOWLEDGEMENTS

The Housing Authority of the County of Yolo (YCH) would like to thank those Yolo County Operational Area collaborators and partners who participated in the planning and development of this document.

The official Yolo County Operational Area Hazard Mitigation Steering Committee provided the oversight and dedication to this project that was required and without their commitment; this project would not be possible.

As with any working plan, this document represents planning strategies and guidance as understood as of the date of this plan's release. This plan identifies natural hazards and risks and identifies the hazard mitigation strategy to reduce vulnerability and make the housing communities of Yolo County more disaster resistant and sustainable.

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LETTER OF PROMULGATION

December 2018

To: Officials and Employees of the Housing Authority of Yolo County

The preservation of life and property is an inherent responsibility of government. As disasters occur in devastating form at any time, the Housing Authority of the County of Yolo (YCH) must provide safeguards which will save lives and minimize property damage through mitigation planning and training. Sound mitigation planning carried out by knowledgeable and well-trained personnel can and will minimize losses.

The Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan (HMP) identifies the hazard risks and vulnerabilities for the Yolo County Operational Area and identifies mitigation projects and actions to help reduce those risks. It provides for the integration and coordination of planning efforts of multiple jurisdictions within Yolo County as well as the Yocha Dehe Wintun Nation and YCH.

This Housing Authority of Yolo County Community Profile is an extension of the HMP. The content is based upon guidance approved and provided by the Federal Emergency Management Agency and the California Governor's Office of Emergency Services. The intent is to provide direction for YCH on how to mitigate against the threat of disaster through effective mitigation strategies and initiatives.

Once adopted, the HMP and Community Profile will be reviewed and tested periodically and revised as necessary to meet changing conditions and requirements.

YCH gives its full support to this Community Profile and urges all employees and individuals to mitigate against the threat of disaster before they occur.

Housing Authority of the County of Yolo (YCH)

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SECTION 1.0: INTRODUCTION

The YCH Community Profile has been prepared in conjunction with the Yolo County Operational Area Hazard Multi-Jurisdictional Mitigation Plan (HMP), establishing an inter-jurisdictional process for the development and implementation of effective hazard mitigation strategies in association with identified hazards that pose real or potential threats to low-income households served by YCH.

1.1 HISTORY

Established in 1950, the Housing Authority of the County of Yolo is an independent California Public Housing Authority dedicated to providing individualized, community-oriented services to the residents of Yolo County and to those communities and organizations who serve them. Yolo County Housing (YCH) is a suite of three (3) agencies; Yolo County Housing, Dixon Housing Authority, and New Hope Community Development Corporation. YCH and its' allied organizations provide assistance to thousands of extremely low to low income persons through their various programs and agencies. In addition, through their agricultural housing program, YCH is home to hundreds of seasonal farm worker family members in the area.

YCH provides rental assistance through low cost housing that it owns and/or manages, through the Housing Choice Voucher program including Project Based Vouchers and the Homeownership program, as well as through housing programs provided by its non-profit subsidiary.

YCH is the owner and landlord of 438 units of housing in Davis, Woodland, Winters, West Sacramento, Esparto, Knight's Landing and Yolo. New Hope Community Development Corporation owns 47 senior and disabled and 48 multi-family units in Woodland. YCH is currently managing Pacifico within the City of Davis which has 48 units available for rent.

The Housing Choice Voucher (HCV) program provides housing assistance payments through private landlords within Yolo County. The number of tenant based, VASH and project-based vouchers that are issued and leased is dependent on HUD funding and regulations up to 1,742 households.

YCH also provides 152 units of temporary housing to migrant farm workers during the growing season in Yolo County and 85 units through the Dixon Housing Authority located in Solano County.

YCH is a general partner in Eleanor Roosevelt Circle, 60 units of senior housing in Davis and manages 8 units of ADMH Transitional Housing in partnership with the County of Yolo. New Hope Community Development, Inc. is a general partner in Cesar Chavez Plaza, 52 units in Davis; and Rochdale Grange, 44 units in Woodland (Springlake area) and an 80-unit development under construction in Woodland.

Yolo County Housing (YCH) is unique in that its' jurisdiction crosses over with our Operation Area partners. Therefore, hazards identified for City of Davis, City of West Sacramento, City of Woodland, City of Winters, Yocha Dehe Tribe (the Tribe) and the County of Yolo are congruent with hazards identified by YCH.

1.2 OVERVIEW

YCH serves a diverse community through its' housing programs. As with any jurisdiction, it is difficult to capture exact numbers. Age demographics for owned rental units by location within the real estate services program are provided as of September 2017.

1.3 DEMOGRAPHICS

Public housing was established to provide decent and safe rental housing for eligible low-income families, the elderly, and persons with disabilities. YCH owns and/or manages units where the agency maintains the primary responsibility for emergency management and hazard mitigation. The table below provides the zip code location of our larger campuses and a "snapshot" of the age demographics and disabled of those communities as of 2017:

Area or Jurisdiction	Zip Code	# of Units	Total Tenants	Under 18	Age 18-54	Age 55-74	75+	SSI SSDI	SSA
Woodland	95776	132	341	132	132	65	12	52	72
Woodland	95695	47	58	0	7	32	19	33	35
West Sacramento	95605	139	263	55	94	72	42	73	45
Winters	95694	124	46	200	199	41	6	20	41
Esparto	95627	16	55	22	23	6	4	3	5
Yolo	95697	10	10	37	20	13	0	1	3
Knights Landing	95645	10	38	20	17	1	0	2	0
Davis	95618	45	48	1	32	15	0	24	0
**Madison	95653	90	345	114	177	52	2	n/a	15
**Davis	95620	64	225	82	115	28	0	n/a	12
**Dixon	95620	85	291	84	150	55	2	n/a	30

** Ag. Units house tenants April through October on a seasonal basis and these numbers vary from year to year.

YCH leases five day care centers on-site at the following locations:

- 100 Myrtle Drive, Winters, CA
- 1280 Lemen Avenue, Woodland, CA
- 31150 County Road 105, Davis, CA
- 28289 Hwy. 16, Madison, CA
- 7290 Radio Station Rd, Dixon, CA

The HCV program is a federal government program for assisting very low-income families, the elderly, and the disabled to afford decent, safe, and sanitary housing in the private market. Since housing assistance is provided on behalf of the family or individual, participants are able to find their own housing, including single-family homes, townhouses, and apartments. A housing subsidy is paid to the landlord directly by YCH on behalf of the participating family. The family then pays the difference between the actual rent charged by the landlord and the amount subsidized by the program.

This program has tenants scattered throughout Yolo County. The table below shows a “snapshot” of the number of families participating in the HCV program by zip code and number of “head of households (HOH)” who are disabled or over the age of 62 as of December 2017.

Zip Code	# of Households	# of HOH Disabled	%
95605	347	215	62%
95616	203	117	58%
95618	111	63	57%
95627	15	6	40%
95653	1	0	0%
95691	319	182	57%
95694	3	2	67%
95695	290	213	73%
95697	0	0	0
95698	0	0	0
95776	143	56	39%
95937	0	0	0

Additional “snapshot” statistics for HCV families are:

- 834 HCV participants receive SSI benefits; this includes all members of the household who receive this type of income regardless of age or relationship.
- 667 HCV participants receive social security benefits and includes household members over the age of 62.
- 117 HCV participants are over the age of 80 years.

The YCH Language Assistance Plan identifies the percentage of Limited English Persons of 15.52% Spanish and 5.96% Russian which can make emergency communications challenging in the event of a disaster.

1.4 INFRASTRUCTURE

Water

YCH owns and operates its' own water wells and water supply at the following locations:

- El Rio Villa I, II, III, and IV, 63 Shams Way, Winters, CA 95694
- Davis Migrant Center, 31150 County Road 105, Dixon, CA 95620
- Dixon Migrant Center, 7290 Radio Station Road, Dixon, CA 95620

All other properties use the local jurisdiction water systems, i.e. City of Woodland, Madison Community Services District, etc.

Sewer

- El Rio Villa I, II, III, & IV, 63 Shams Way, Winters, CA 95694: YCH owns 1+ mile of sewer pipe and the lift station that feeds into the sewer. YCH and the City of Winters has a MOU for the provision of sewer services to the Winters development.
- Davis and Dixon Migrant Center: Operate sewer ponds on site.
- Yolo: Own and operate septic system for 12 units.

All other properties use the local jurisdiction sewer systems.

Streets

YCH owns streets and sidewalks in the following communities:

- El Rio Villa I, II, III, & IV, Winters, CA: Shams Way, Fredericks Drive, and Myrtle, Winters
- Yolano/Donnelly, Lemen Avenue and Donnelly Circle, Woodland
- Las Casitas, 665 and 685 Lighthouse Way, W Sacramento
- Riverbend Manor, 664 Cummins, W. Sacramento

Gas/Electricity/Power Poles/Propane

- Provided and maintained by utility companies serving each jurisdiction with the exception of Dixon Migrant Center which requires outside contractors to service power poles.

1.4.1 CRITICAL FACILITIES

The following owned facilities have been determined to be critical for Yolo County Housing to fulfill the requirements of its mission in the event of an emergency:

Name	Address
Administrative Building	147 W. Main, Woodland
Winters Housing Office (Alternate Hot Site)	63 Shams Way, Winters
Internet Service Provider	AT&T, TPX, T-Mobile, Comcast and WAVE Cable

Name	Address
Winters Water Well	Winters Housing Complex, 63 Shams Way, Winters
Davis Water Well	Davis Migrant Center, 31150 County Road 105, Dixon
Dixon Water Well	Dixon Migrant Center, 7290 Radio Station Rd., Dixon
El Rio Villa Sewer Lift Station	Winters
Sewer Ponds/Pump Systems	Dixon Migrant Center and Davis Migrant Center

The following external critical facilities are necessary to fulfill the requirements of the mission of Yolo County Housing in the event of an emergency:

PG&E
Fire Departments and Fire Protection Districts
Sheriff/Police Departments
Hospitals and Emergency Medical Response
Madison Community Services District
Esparto Community Services District
Knights Landing Community Services District
City and County Public Works Departments

1.4.2 ADDITIONAL ASSETS

Additional assets of the YCH and New Hope CDC include:

Project Name	Address	City	Zip Code	Total Sq. Footage	Total Income Value
Administration Building	147 W. Main Street	Woodland	95695	25,000	4,341,429
Day Care Center	1285-A Lemen Avenue	Woodland	95776	5,956	1,011,326
Recreation Bldg	1285-B Lemen Avenue	Woodland	95776	3,966	572,046
Computer Learning Center	1230-A Lemen Avenue	Woodland	95776	1,000	155,336

Project Name	Address	City	Zip Code	Total Sq. Footage	Total Income Value
Yolano Village	Yolano Drive	Woodland	95776	53,292	8,757,388
Donnelly Circle	Donnelly Circle	Woodland	95776	70,136	10,242,241
Park (Soccer Field, Playgrounds)	Yolano/Donnelly	Woodland	95776		
Cottonwood Meadows	120 N. Cottonwood	Woodland	95695	36,190	6,152,300
Crosswood Apartments	646 3 rd Street	Woodland	95695	38,250	6,502,500
Helen M. Thomson Home #1		Woodland	95695	1,422	227,223
Winters Office & Community Room	63 Shams Way	Winters	95694	1,800	\$1,114,222
Day Care Center	100 Myrtle Drive	Winters	95694	3,700	539,619
Park (Soccer Field, Playgrounds)		Winters	95694		
El Rio Villa I	Fredericks Drive	Winters	95694	24, 114	4,245,588
El Rio Villa II	Myrtle Drive	Winters	95694	26,528	4,501,134
El Rio Villa III	Owings Drive and Shams Way	Winters	95694	44,344	6,483,567
El Rio Villa IV	Purtell Place	Winters	95694	16,830	2,911,410
Multi Purpose Room/Kitchen	664 Cummins Way	W. Sac	95605	6,750	976,603
Office	664 Cummins Way	W. Sac	95605	1,505	227,078 plus rental Income
Riverbend Manor I	664 Cummins Way	W. Sac	95605	21,948	3,264,872

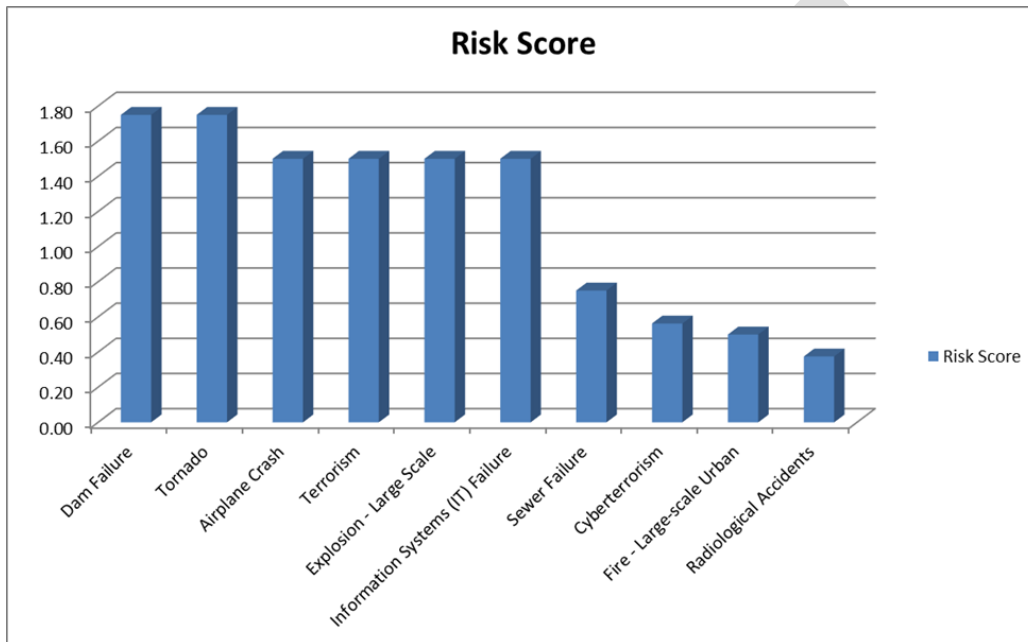
Project Name	Address	City	Zip Code	Total Sq. Footage	Total Income Value
Riverbend Manor II	665 Lighthouse Drive	W. Sac	95605	13,143	1,998,792
Las Casitas Office/Computer Lab	685 Lighthouse Drive	W. Sac	95605	3,422	508,581 plus rental income
Las Casitas	685 Lighthouse Drive	W. Sac	95605	78,854	11,568,335
Community Garden	664 Cummins Way	W. Sac	95605		
Playground	685 Lighthouse Drive	W. Sac	95605		
Helen M. Thomson Home #2		W. Sac	95691	2,269	306,223
Vista Montecito	Antelope Street Madison Street Plainfield Street	Esparto	95627	31,152	\$2,314,140 plus rental income
Playground	Antelope Street	Esparto	95627		
Ridgecut Homes	S. Oak Grove Avenue	Knights Landing	95645	8,410	1,320,659
Playground	S. Oak Grove Avenue	Knights Landing	95645		
Yolito	Washington Street Sacramento Street	Yolo	95697	8,389	1,387,226
Playground	Washington Street	Yolo	95697		
Davis Solar Homes	Alice Street Biscayne Bay Feather Place Islas Place	Davis	95616	9,000	1,447,173
Madison Office/Shop	29289 State Hwy. 16	Madison	95653	600	284,431

Project Name	Address	City	Zip Code	Total Sq. Footage	Total Income Value
Day Care Center Community Room	29289 State Hwy. 16	Madison	95653	6,804	1,149,973
Madison Migrant Center	29289 State Hwy. 16	Madison	95653	79,436	13,086,795
Davis Office Community Room	31150 County Road 105	Dixon	95620	2,304	586,086
Infant & Child Care Center	31150 County Road 105	Dixon	95620	5,928	962,415
Davis Migrant Center	31150 County Road 105	Dixon	95620	56,797	9,466,953
Playground/Soccer Field	31150 County Road 105	Dixon	95620		
Dixon Office and Meeting Rooms	7290 Radio Station Road	Dixon	95620	5,598	1,033,198
Dixon Community Room #2	7290 Radio Station Road	Dixon	95620	4,200	713,600
Child Care Center	7290 Radio Station Road	Dixon	95620	8,974	1,301,887
Dixon Migrant Center	7290 Radio Station Road	Dixon	95620	74,567	12,519,005
Park, Playgrounds, Soccer Fields	7290 Radio Station Road	Dixon	95620		
Temporary House (Name TBD)	166 Buckeye Street	Woodland	95695		\$300,000

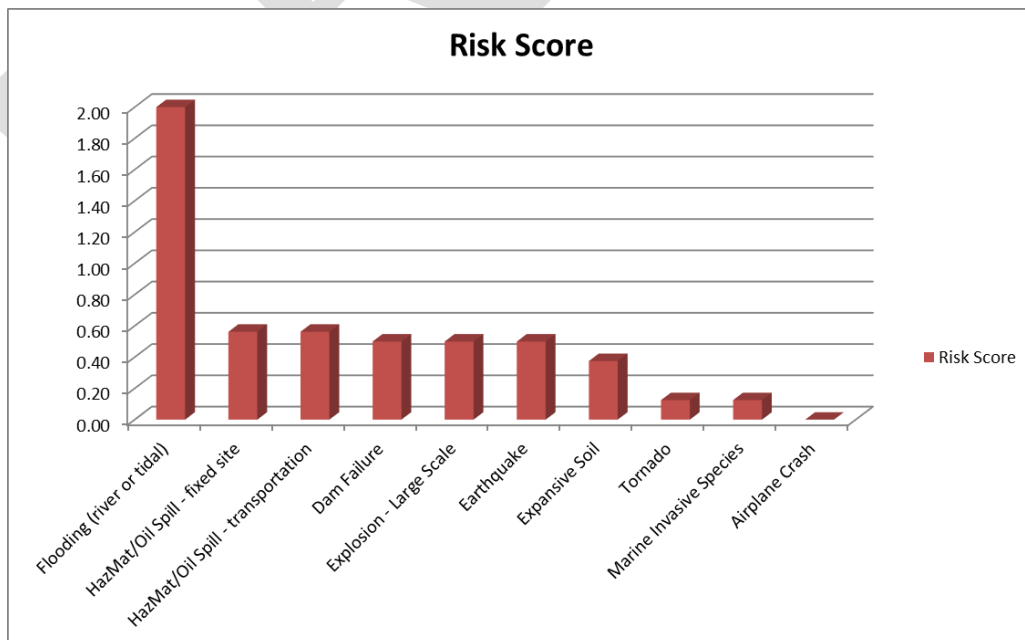
SECTION 2.0: HAZARD IDENTIFICATION AND RISK ASSESSMENT

As described in the community profile, the Yolo County Housing community (property and families served) cross over all jurisdictions in Yolo County. Therefore, risk hazards identified by the shared services partners in the Yolo County Multi-Hazard Mitigation Plan are adopted by YCH as risk hazards to life and property in our community. The risk hazards are documented in the jurisdictional Community Profiles and are reflected below:

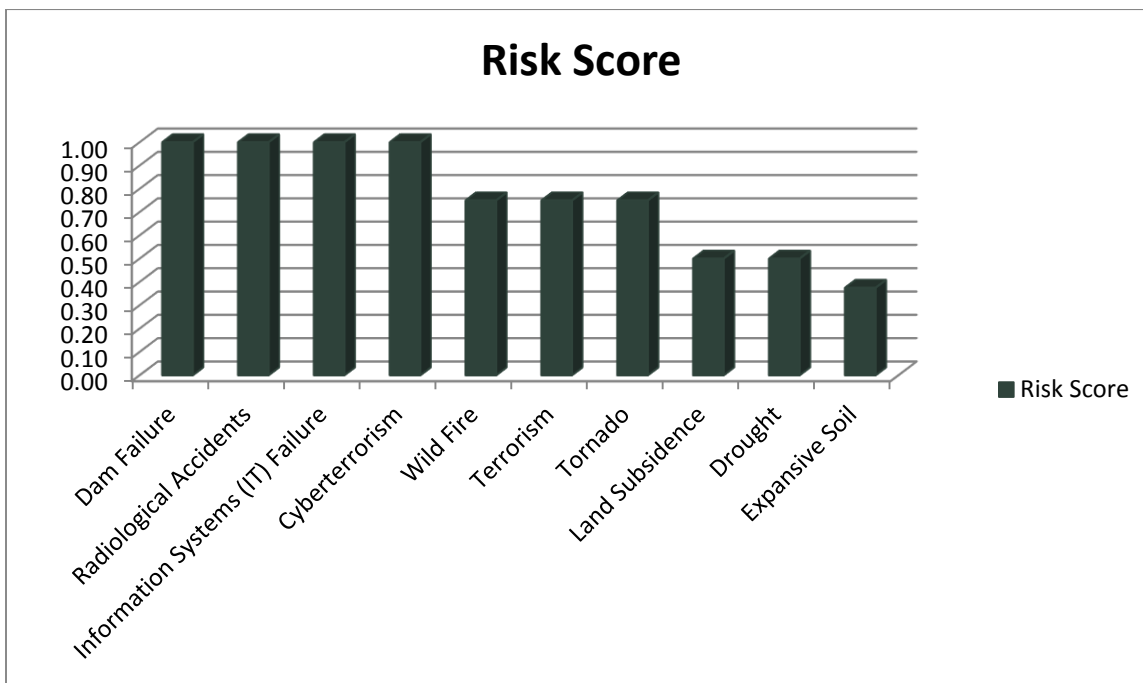
2.1 CITY OF DAVIS RISK ASSESSMENT



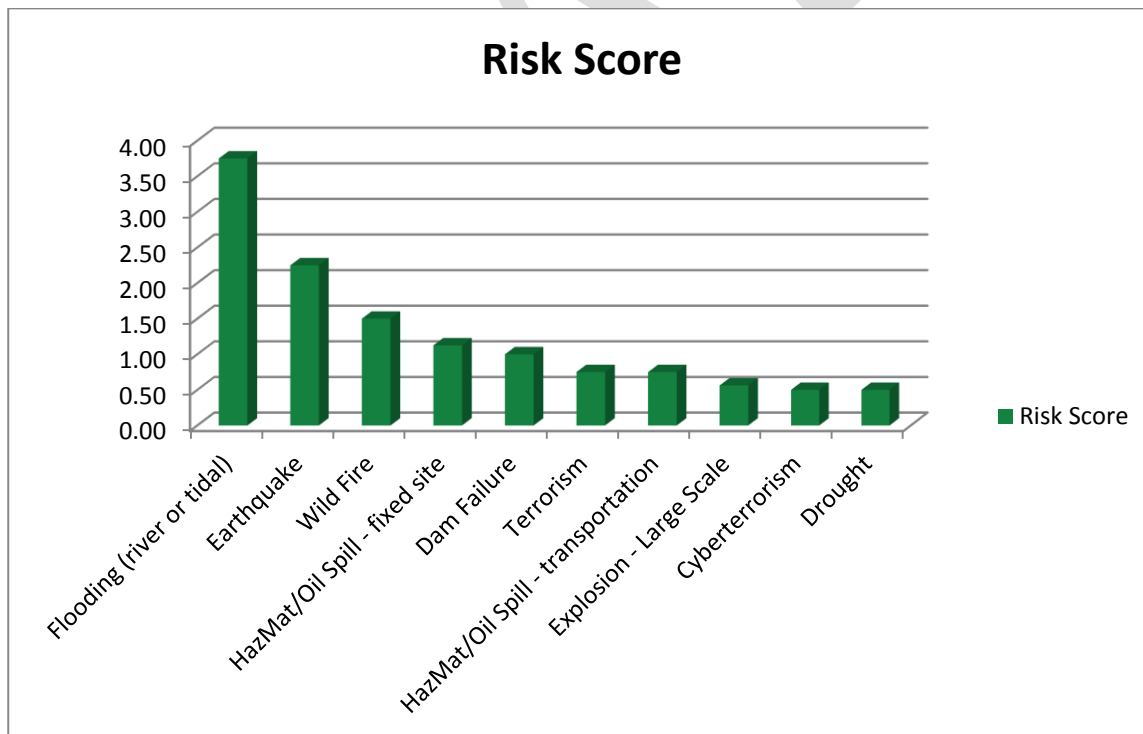
2.2 CITY OF WEST SACRAMENTO RISK ASSESSMENT



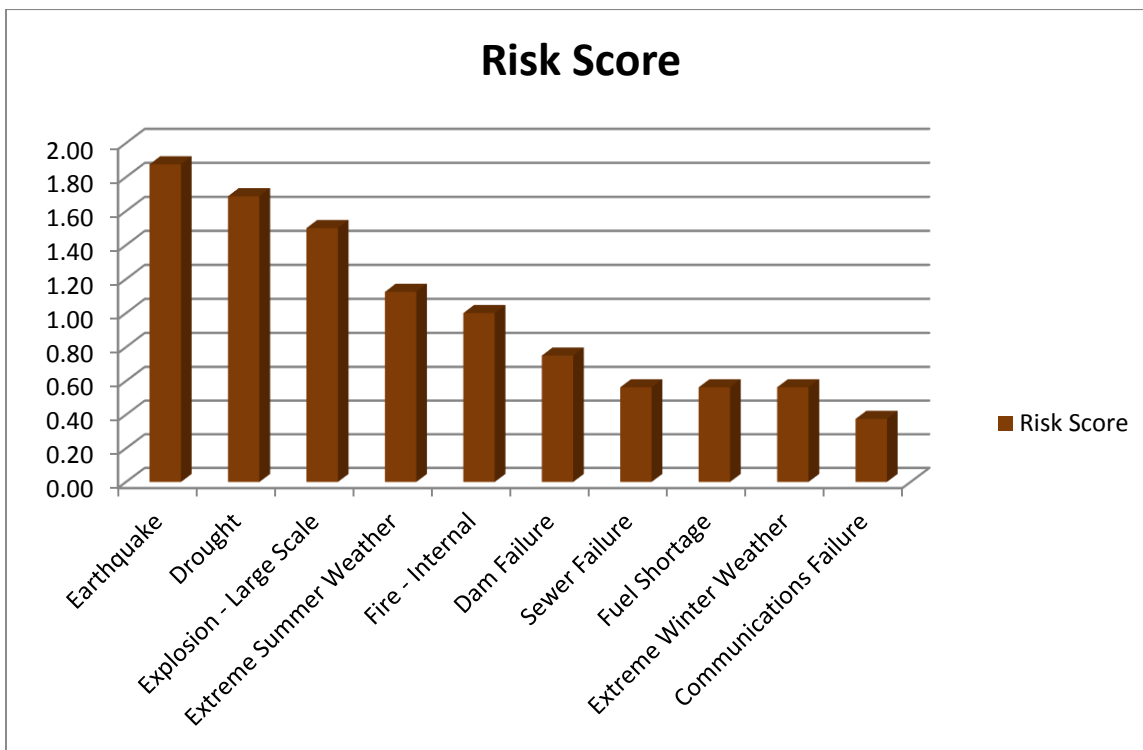
2.3 CITY OF WINTERS RISK ASSESSMENT



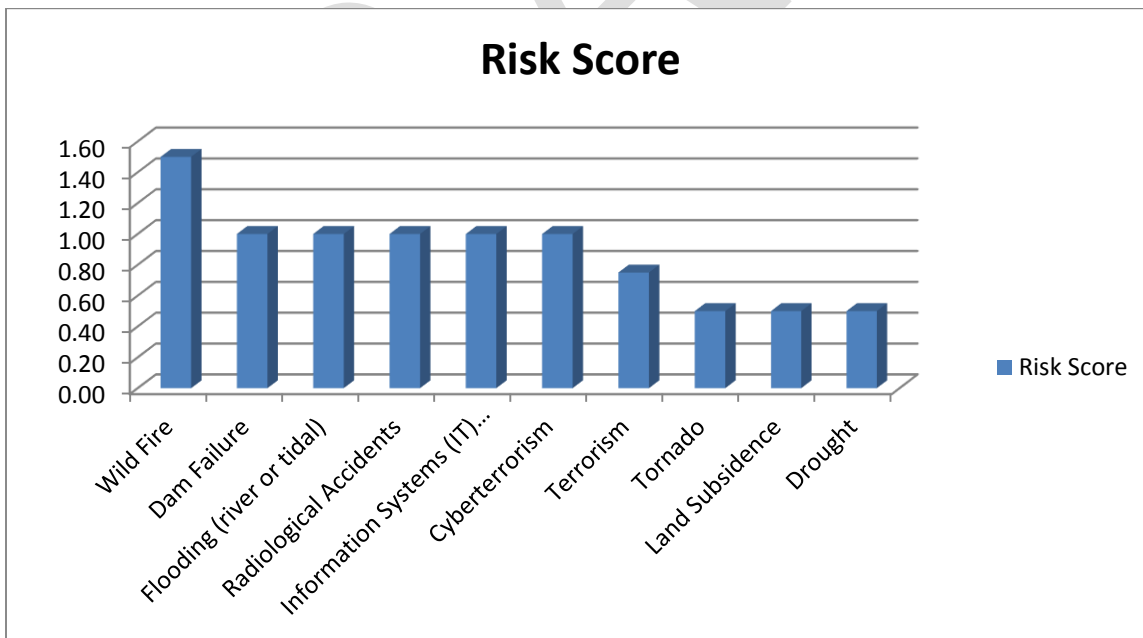
2.4 CITY OF WOODLAND RISK ASSESSMENT



2.5 YOCHA DEHE WINTUN NATION RISK ASSESSMENT



2.6 UNINCORPORATED YOLO COUNTY RISK ASSESSMENT



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SECTION 3.0 MITIGATION STRATEGY

3.1 CAPABILITIES ASSESSMENT

Yolo County Housing is a “political subdivision” of the *State of California; since it is a public body corporate and politic, and as such can exercise public and essential governmental functions and has all the necessary powers to carry out the purposes and provisions of the Housing Authorities Law. The “governing body” of the political subdivision currently consists of the seven Commissioners; five representatives consisting of one elected official from each of the four city jurisdictions (three appointed and one alternate); two appointed at-large members and two consumers referred to as Tenant Commissioners.

*California Health and Safety Code Section 34310: An authority constitutes a corporate and politic public body, exercising public and essential governmental functions, and having all the powers necessary or convenient to carry out the purposes and provisions.

YCH Departments

Executive: Governance, Agency Management, Community and Housing Development, Legal Counsel (contract), and HUD Reporting.

Finance: Agency Budget, Accounts Payable/Receivables, HUD Reporting.

Facilities: Capital Improvement Projects, Construction Management, Risk Management/Mitigation, Utilities, HUD Reporting.

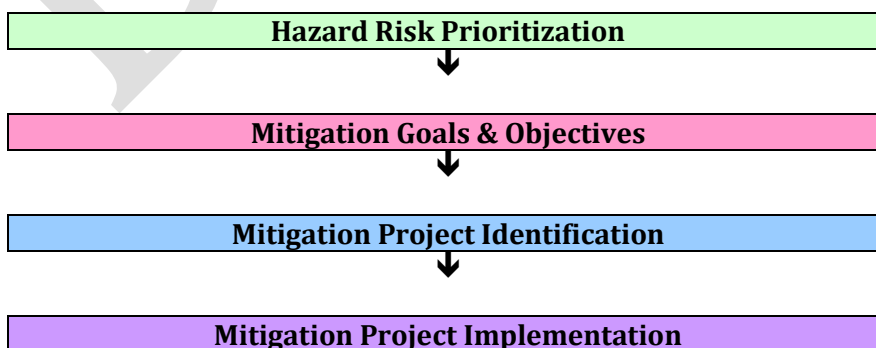
Resources: Information Technology, Human Resources, Risk Management/Mitigation, Contract Compliance, Emergency Services, ADA and Reasonable Accommodations.

Operations: Property Management, Maintenance (Public Works), Housing Assistance Program, Resident Services, Self-Sufficiency, and HUD Reporting.

YCH does not currently have in-house fire or police functions within the agency.

3.2 MITIGATION GOALS

The information developed for the risk assessment was used as the primary basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines explaining what each jurisdiction wants to achieve in terms of hazard and loss prevention.



Goal statements are typically long-range, policy-oriented statements representing jurisdiction-wide visions. Objectives are statements that detail how each jurisdiction's goals will be achieved, and typically define strategies or implementation steps to attain identified goals. Other important inputs to the development of jurisdiction-level goals and objectives include performing reviews of existing local plans, policy documents, and regulations for consistency and complementary goals, as well as soliciting input from the public.

The following represents overarching strategic goals associated with the identification and eventual implementation of appropriate and meaningful hazard mitigation efforts in relation to prioritized hazards and threats confronting the Yolo Operational Area. These goals form the basis for specific supporting process objectives and are shown from the highest priority, at the top of the list, to those of lesser importance.

The establishment of hazard mitigation goals represents both individual and collective strategies that have been mutually agreed upon by the Steering Committee, and have not changed with the 2018 HMP update. Eventually, these goals will be adopted by each participating jurisdiction and public agency as the guiding policy behind local hazard mitigation efforts, in conjunction with other associated principles.

Goal 1:	Protection of life during and after the occurrence of disasters from identified hazards;
Goal 2:	Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
Goal 3:	Protection of emergency response capability
Goal 4:	Protection of developed property, homes and businesses, industry, educational opportunities and the cultural fabric by combining hazard loss reduction with the community's environmental, social and economic needs
Goal 5:	Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives
Goal 6:	Preserving or restoring natural mitigation values such as flood plains.
Goal 7:	Protection of natural resources and the environment.

Planning Process Objectives

The following objectives are meant to serve as a metric upon which the Yolo Operational Area Hazard Mitigation Plan can be evaluated. Meeting these objectives assures the Multi Hazard Mitigation Plan as a functional document that identifies short-and long-term strategies, and describes each measure including:

Objective 1:	Identification of individuals, agencies or organizations responsible for project implementation.
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Objective 2:	Projecting a realistic and doable time frame for project implementation.
Objective 3:	Explanation of how the project will be financed including the conditions for financing and implementation as information is available.
Objective 4:	Identification of alternative measures, should financing not be available.
Objective 5:	Maintain consistent support for the implementation of existing hazard mitigation planning goals and objectives for the operational area.
Objective 6:	Base mitigation strategies on hazards as identified within the Yolo OA Risk Assessment.
Objective 7:	Provide significant potential for the effective reduction of damage to public and/or private property, or to costs associated with local, state, and federal recovery from future potential impacts.
Objective 8:	Establish and maintain a benchmark for identifying the most practical, cost effective, socially acceptable, and environmentally sound mitigation solution after consideration of available alternatives.
Objective 9:	Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential for loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering.
Objective 10:	Meet applicable permit requirements.
Objective 11:	Develop mitigation standards for development in hazardous areas.
Objective 12:	Contribute to both the short-and long-term solution to the hazard vulnerability risk problem.
Objective 13:	Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation.
Objective 14:	Have manageable maintenance and modification costs.
Objective 15:	When feasible, be designed to accomplish multiple objectives including improvement of life safety, damage reduction, restoration of essential services, protection of critical infrastructure, security of economic development, recovery, and environmental sustainability.

Objective 16:	Whenever feasible, use existing resources, agencies and programs to implement the project.
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Objective 17:	Include regional hazard mitigation concerns and strategies
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3.3 MITIGATION PROJECTS

Mitigation projects were selected for each hazard and for each jurisdiction based off the hazard risk assessment. The projects are supported by the mitigation goals and objectives, and are ranked using the following criteria; approximate cost, timeframe of completion, whether the project requires Board of Supervisors regulatory action, and an assumption as to whether or not the project would be subject to CEQA or federal EIR requirements. Funding sources are identified for all projects.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
All Hazards Public Awareness and Disaster Preparedness	All / Yolo County Office of Emergency Services (OES)	Existing (2005)	Yolo County OES General Fund	Ongoing	Important element of CRS program
Convene Local/Tribal Disaster Councils	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	2020	Disaster Councils are being joined into one OA Coordinating Group
Community Warning System	All / Yolo County OES	COMPLETE D (2005)	Yolo County OES General Fund	Completed	These systems are continually updated due to changing technology
Care and Shelter Planning to include People with Disabilities, the Elderly, Access and Functional Needs, and Animals	All / Yolo County Health and Human Services Agency (HHSA)	Existing (2013)	Yolo County OES General Fund	Ongoing	Rapidly changing planning effort due to evolving best practices

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Develop Public Health and Mass Care Tiered Response System Countywide	All / Yolo County HHSA	DELETED (2013)	DELETED	Deleted	Major advance in capability within medical and human services communities to meet needs of Yolo County residents
2018 Yolo County Hazard Mitigation Plan Update	All / Yolo County OES	NEW (2016)	PDM, HMGP	2018	Five-year required update
Generator for Emergency Backup Power to EOC	Yolo County Housing / Yolo County Housing	Existing (2013)	PDM, HMGP	2018	Ongoing
DROUGHT					
Drought Contingency Plan	All / Yolo County OES	Existing (2013)	PDM, HMGP	2018	Ongoing
Drought Mitigation Plan	All / Yolo County OES	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change
EARTHQUAKE					
Non-Structural Mitigation Outreach Program	All / Yolo County Community Services Department	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
SEVERE WEATHER					
Emergency Power	Yolo County and the Cities of Davis, West Sacramento, Winters, Yolo County OES	Existing (2005)	PDM, HMGP	Ongoing	Ongoing

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Winter Weather Preparedness Campaign	All / Yolo County OES	Existing (2013)	Yolo County OES General Fund	Ongoing	Ongoing
WILDFIRE					
Fuel Reduction in Local Responsibility Areas	All	Existing (2013)			
Wildfire Mitigation Plan	All	NEW (2017)	PDM, HMGP	2018	Includes effects of climate change

SECTION 4.0: PLAN REVIEW, EVALUATION AND IMPLEMENTATION

The strategies presented are deemed appropriate and effective by recommendation of the Housing Authority of Yolo County.

4.1 PLAN ADOPTION

Upon submission to the California Office of Emergency Services (CalOES) for review, and subsequent approval by the Federal Emergency Management Agency (FEMA), the Yolo County Hazard Mitigation Plan will be presented to local government for formal adoption. As appropriate, the adopted plan and accompanying Housing Authority of Yolo County Community Profile will then be incorporated into local general plans for integration into organizational policy.

4.2 PLAN MONITORING

The process of hazard mitigation does not end with the completion, approval, and adoption of the Yolo County Hazard Mitigation Plan and the Housing Authority of Yolo County Community Profile. Within the lifespan of these documents (five years), local government along with community-based organizations will ensure that the mitigation goals and strategies identified are monitored, that plan administration will continue under a collaborative and cooperative umbrella, and that the document itself will be properly maintained.

The Yolo County Office of Emergency Services, as lead coordination agency for hazard mitigation planning within the Yolo OA, and will assist and support the ongoing collaborative efforts of the Housing Authority of Yolo County, through the established Hazard Mitigation Steering Committee. Specific plan maintenance activities by the Yolo County Office of Emergency Services and the Housing Authority of Yolo County may include:

- Distribution of the HMP and Community Profile to all interested parties, including both written and digital formats
- Monitoring of the Housing Authority of Yolo County mitigation project activities and dissemination of status reports
- Generation of reports relative to plan status, project management, and revision updates to executive leadership
- Preparations for plan eventual revision and updating

4.3 PLAN EVALUATION

Upon approval and adoption by the Housing Authority of Yolo County, the prioritized mitigation strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

The mitigation strategies represented and adopted within this plan are recommendations only, and must be approved and funded in order to be implemented as official mitigation solutions. Ultimately, it is the responsibility of jurisdictional and agency officials within the Yolo Operational Area to undertake project implementation based upon identified mitigation strategies, funding availability, and local need when it arises. The Yolo County Office of Emergency Services will meet with the Hazard Mitigation Steering Committee to evaluate the plan after each update meeting.

4.4 PLAN UPDATE

During the five year update cycle, the Yolo County Office of Emergency Services will hold tri-annual update meetings with the Hazard Mitigation Steering Committee and local stakeholders to discuss revisions to the plan. The Yolo County Office of Emergency Services will continue to hold public meetings after the first and third update meetings annually, and will continue to invite public participation in the update process via updated public surveys.

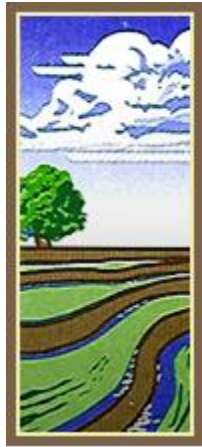
DRAFT

APPENDIX A: ADOPTION LETTER

DRAFT

APPENDIX K: COMMUNITY PROFILE – SPECIAL DISTRICTS

DRAFT



RECLAMATION
DISTRICT
108

Reclamation District 108
Sacramento River West Side Levee District
Knights Landing Ridge Drainage District
Special District Profile Information

Addendum to the 2018 Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

December 2018

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A1.b. & A1.c. PARTICIPATION IN THE HAZARD MITIGATION PLAN

The jurisdictions participating in the Yolo County Hazard Mitigation Plan include:

County of Yolo

David M. Block, OES Emergency Services Planner, Office of Emergency Services, County of Yolo

City of Davis

Daryl C. Arbuthnott, Fire Chief, Fire Department, City of Davis

City of West Sacramento

Bryan Jonson, Fire Marshal, Fire Department, City of West Sacramento

City of Winters

Dan McGuire, Executive Assistant, City Manager's Office, City of Winters

City of Woodland

Becky Ramirez, Fire Chief, Woodland Fire Department, City of Woodland

Yocha Dehe Wintun Nation

Gary Fredericksen, Fire Chief, Yocha Dehe Fire Department, Yocha Dehe Wintun Nation

Housing Authority of Yolo County

Janis Holt, General Managing Director, Housing Authority of Yolo County

Reclamation District 108 (including sister Districts: Sacramento River West Side Levee District and Knights Landing Ridge Drainage District)

Meegan Nagy, Deputy Manager, RD 108

Reclamation District 900

Kenric Jameson, District Manager, RD 900

Reclamation District 2035

Mike Hall, CPG Farm Manager, RD 2035

Yolo County Flood Control & Water Conservation District

Kristin Sicke, Assistant General Manager, YCFCWCD

For those Reclamation Districts that were unable to physically be present at meetings, the Yolo County Office of Emergency Services talked with each of them throughout the planning process on their mitigation strategies. They provided information directly to help build and update their respective profiles.

B1.a. & B3.b. HAZARD DESCRIPTION and VULNERABILITY

Reclamation District 108 and sister Districts identified hazards that affect the Districts based upon the countywide risk assessment, past events and their impacts. Definitions for the rankings and a detailed explanation of the hazards can be found in Element B: Hazard Identification and Risk Assessment of the Yolo County MHMP Base Plan.

RD 108, SRWSLD, KRDD —Hazard Profiles

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Flood	Likely	Catastrophic
Levee Failure	Unlikely	Catastrophic
Drought	Likely	Critical

Flooding

Flooding is the rising and overflowing of a body of water onto normally dry land. History clearly highlights floods as the most frequent natural hazard impacting Yolo County. Floods are among the costliest natural disasters in terms of human hardship and economic loss nationwide. Floods can cause substantial damage to structures, landscapes, and utilities as well as life safety issues. Floodwaters can transport large objects downstream, which can damage or remove stationary structures. Ground saturation can result in instability, collapse, or other damage. Objects can also be buried or destroyed through sediment deposition. Floodwaters can also break utilities lines and interrupt services. Standing water can cause damage to crops, road, foundations, and electrical circuits. Certain health hazards are also common to flood events. Standing water can also cause septic tank failure and well contamination. Standing water and wet structures can become breeding grounds for microorganisms such as bacteria, mold, and viruses. This can cause disease, trigger allergic reactions, and damage materials long after the flood. When floodwaters contain sewage or decaying animal carcasses, infections become a concern. Direct impacts, such as drowning, can be limited with adequate warning and public education about what to do during floods. Where flooding occurs in populated areas, warning and evacuation will be of critical importance to reduce life and safety impacts from any type of flooding.

Certain health hazards are also common to flood events. While such problems are often not reported, three general types of health hazards accompany floods. The first comes from the water itself. Floodwaters carry anything that was on the ground that the upstream runoff picked up, including dirt, oil, animal waste, and lawn, farm and industrial chemicals. Pastures and areas where cattle and other livestock are kept or their wastes are stored can contribute polluted waters to the receiving streams. Floodwaters also saturate the ground, which leads to infiltration into sanitary sewer lines. When wastewater treatment plants are flooded, there is nowhere for the sewage to flow. Infiltration and lack of treatment can lead to overloaded sewer lines that can back up into low-lying areas and homes. Even when it is diluted by flood waters, raw sewage can be a breeding ground for bacteria such as e. coli and other disease causing agents.

The area adjacent to a channel is the floodplain. Floodplains are illustrated on inundation maps, which show areas of potential flooding and water depths. In its common usage, the floodplain most often refers to that area that is inundated by the 100-year flood, the flood that has a one percent chance in any given year of being equaled or exceeded. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program. The 200-year flood is one that has 0.5% chance of being equaled or exceeded each year. The 500-year flood is the flood that has a 0.2 percent chance of being equaled or exceeded in any given year. The potential for flooding can change and increase through various land use changes and changes to land surface, which result in a change to the floodplain. A change in environment

can create localized flooding problems inside and outside of natural floodplains by altering or confining natural drainage channels. These changes are most often created by human activity. Yolo County and its Reclamation Districts are susceptible to various types of flood events:

Riverine flooding – Riverine flooding, defined as when a watercourse exceeds its “bank-full” capacity, generally occurs as a result of prolonged rainfall, or rainfall that is combined with snowmelt and/or already saturated soils from previous rain events. This type of flood occurs in river systems whose tributaries may drain large geographic areas and include one or more independent river basins. The onset and duration of riverine floods may vary from a few hours to many days and is often characterized by high peak flows combined with a large volume of runoff. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution, the amount of soil moisture, seasonal variation in vegetation, snow depth, and water-resistance of the surface due to urbanization. In Yolo County, riverine flooding can occur anytime from November through April and is largely caused by heavy and continued rains, sometimes combined with snowmelt, increased outflows from upstream dams, and heavy flow from tributary streams. These intense storms can overwhelm the local waterways as well as the integrity of flood control structures. Flooding is more severe when antecedent rainfall has resulted in saturated ground conditions. The warning time associated with slow rise riverine floods assists in life and property protection

Flash flooding – Flash flooding describes localized floods of great volume and short duration. This type of flood usually results from a heavy rainfall on a relatively small drainage area. Precipitation of this sort usually occurs in the winter and spring. Flash floods often require immediate evacuation within the hour and thus early threat identification and warning is critical for saving lives.

Localized/Stormwater flooding – Localized flooding problems are often caused by flash flooding, severe weather, or an unusual amount of rainfall. Flooding from these intense weather events usually occurs in areas experiencing an increase in runoff from impervious surfaces associated with development and urbanization as well as inadequate storm drainage systems.

A weather pattern called the “Atmospheric River” contributes to the flooding potential of the area. An Atmospheric River brings warm air and rain to West. A relatively common weather pattern brings southwest winds to the Pacific Northwest or California, along with warm, moist air. The moisture sometimes produces many days of heavy rain, which can cause extensive flooding. The warm air also can melt the snow pack in the mountains, which further aggravates the flooding potential. In the colder parts of the year, the warm air can be cooled enough to produce heavy, upslope snow as it rises into the higher elevations of the Sierra Nevada or Cascades. Forecasters and others on the West Coast often used to refer to this warm, moist air as the “Pineapple Express” because it comes from around Hawaii where pineapples are grown.

Levee Failure

Levee failure flooding can occur as the result of partial or complete collapse or underseepage of an impoundment, and often results from prolonged rainfall and flooding. The primary danger associated with dam or levee failure is the high velocity flooding of those properties downstream of the breach. Table B-12 describes the levees and their location in Yolo County.

A levee failure can range from a small, uncontrolled release to a catastrophic failure. Vulnerability to levee failures is generally confined to the areas subject to inundation downstream of the facility. Secondary losses would include loss of the multi-use functions of the facility and associated revenues that accompany those functions.

Approximately 150 years ago, the levees of the Sacramento-San Joaquin Delta were raised to prevent flooding on what remains some of the most fertile farmland in the nation. While the peat soils were excellent for agriculture, they were not the best choice to create strong foundations for levee barriers meant to contain a constant flow of river water. Nevertheless, it was these native soils that were primarily used to create the levee system.

Levee failure flooding would vary in the County depending on which structure fails and the nature and extent of the failure and associated flooding. This flooding presents a threat to life and property, including buildings, their contents, and their use. Large flood events can affect lifeline utilities (e.g., water, sewerage, and power), transportation, jobs, tourism, the environment, agricultural industry, and the local and regional economies.

Lands within the Levee Flood Protection Zones may be subject to flooding due to various factors, including the failure or overtopping of project or non-project levees, flows that exceed the design capacity of project or non-project levees, and flows from water sources not specifically protected against by project levees. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with U.S. Army Corps of Engineers guidelines. Lands not mapped within a Levee Flood Protection Zone are not invulnerable to flood risk, and some may also experience flooding from these or other related events.

Characteristics of Primary Waterways

The Sacramento River runs along the east side of the Colusa Basin and Knights Landing Basin in a single meandering channel. In general, the ground elevation descends from the Sacramento River southwestward toward the Colusa Basin Drain and the Yolo Bypass in the west. Floodwaters from a breach along the Sacramento River levees will, therefore, flow generally southwest or southeast toward the Knights Landing Ridge Cut and the Yolo Bypass rather than directly parallel along the river. One relief structure, the Fremont Weir connects the Sacramento River with the Yolo Bypass. The Fremont Weir is intended to remove water from the Sacramento River in order to lower water elevations downstream. On the north side of the Town of Knights Landing, the Knights Landing Outfall Gates and channel allows water to pass between the Sacramento River and the Colusa Drain. These gates protect the lower Colusa Drainage Basin from backwater of the Sacramento River and assist with agricultural irrigation operations during the dry season. High flows from the American River at its confluence with Sacramento River in Sacramento can cause the Sacramento River to flow backwards.

The Colusa Drain runs along the western side of the Knights Landing Ridge Drainage District Levee and receives water flows from streams and creeks originating in the Coast Range along with local drainage from the north. Flood waters in the Colusa Drain are contained by levees on its east side maintained from north to south by Maintenance Area 12, Reclamation District 108, and Reclamation District 787. At the south end of the Drain, flood waters pool at the Knights Landing Ridge and flow through the Knights Landing Ridge Cut into the Yolo Bypass. The Knights Landing Outfall Structure and channel connects the Colusa Drain with the Sacramento River at this point to allow controlled water flow between those two waterways.

Reclamation District 108

Reclamation District (RD) 108 is located along the western edge of the Sacramento River and delivers water to nearly 48,000 acres of farmland within southern Colusa County and northern Yolo County. RD 108 receives water from the Sacramento River under riparian water rights, licenses for appropriation of surface water, and a Settlement Contract with the US Bureau of Reclamation. The

first irrigated crops were grains, mostly barley but today include rice, wheat, corn, safflower, tomatoes, beans, vine seeds, cotton, walnuts and fruit.

The District was formed in 1870 under the Reclamation District Law of 1868 for the purpose of forming a district to build levees and “reclaim” land subject to periodic overflow from neighboring rivers and water bodies. At this time the Government was promoting reclamation to develop swamp lands for the improvement and cultivation of the thousands of acres in California. On October 4, 1870 the landowners submitted a petition to the Colusa and Yolo County Boards of Supervisors authorizing the formation of a new Reclamation District and assigned it the number 108.

RD 108 is surrounded on three sides by levees, that include the west-side levees from Colusa to Knights Landing along the Sacramento River, a Back Levee along the District’s western boundary to prevent flooding from the Colusa Basin, and then along the slough in the South that at one time took drainage water from the Colusa Basin back to the Sacramento River. The District works in coordination with the Sacramento River West Side Levee District and the Knights Landing Ridge Drainage District to provide maintenance to over 90 miles of levees. All of the levees were originally built by the local landowners using whatever materials available and whatever criteria they chose, but have since become part of the federally sponsored Sacramento River Flood Control Project. The levees protect the rural communities in Yolo and Colusa Counties. These levees are integral to the system-wide performance of the Sacramento River Flood Control Project and provide indirect protection to the cities of Sacramento and West Sacramento. Since formation of the levee districts, Sacramento River West Side Levee District, Knights Landing Ridge Drainage District have shared management, personnel and equipment with RD 108. The flood control districts reimburse RD 108 for management and work performed.

Sacramento River West Side Levee District

The levees south of Colusa were initially maintained by Reclamation District No. 108, but the costs for levee construction and maintenance were high and borne by few landowners whereas the benefits of flood protection extended beyond RD 108 boundaries. In 1915 the legislature created the Sacramento River West Side Levee District to more accurately reflect the lands benefited. All of the levees were originally built by landowners and have become part of the federally authorized Sacramento River Flood Control Project. The levee system protects the City of Colusa, town of Grimes while also protecting approximately 194,000 acres of farmland.

Knights Landing Ridge Drainage District

In 1913 the legislature created the Knights Landing Ridge Drainage District. The Knights Landing Ridge Drainage District area is protected by an interdependent levee system, is approximately 4000 acres, and is managed by RD 108 staff. This interdependent system is an integral part of the Sacramento River Flood Control Project and provides protection to the Town of Knights Landing, which is the community most vulnerable to a levee threat along the Sacramento River in this area. The Knights Landing Levee System is bounded by three major waterways: the Sacramento River on the east, the Yolo Bypass on the southeast, and the Colusa Drain on the west. The basin protected by this levee system is primarily agricultural with one rural community, the Town of Knights Landing. The protected area is within Yolo County.

Drought

A drought is a deficiency in precipitation over an extended period, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people. It is a normal recurrent feature of climate that occurs in virtually all climate zones, from very wet to very

dry. Drought is a temporary aberration from normal climatic conditions and can thus vary significantly from one region to another. Droughts occur slowly, over a multi-year period, and it is often not obvious or easy to quantify when a drought begins and ends. Drought is a complex issue involving many factors—it occurs when a normal amount of moisture is not available to satisfy an area's usual water-consuming activities.

There are several types of drought which can often be defined regionally based on its effects:

- Meteorological drought is usually defined by a period of below average water supply, based on the degree of dryness (in comparison to normal or average) and the duration of the dry period. Drought onset generally occurs with a meteorological drought.
- Agricultural drought occurs when there is an inadequate water supply to meet the needs of the state's crops and other agricultural operations such as livestock. Agricultural drought links various characteristics of meteorological (or hydrological) drought to agricultural impacts, focusing on precipitation shortages, soil water deficits, reduced ground water or reservoir levels needed for irrigation.
- Hydrological drought is defined as deficiencies in surface and subsurface water supplies. It is generally measured as stream flow, snowpack, and as lake, reservoir, and groundwater levels. Hydrological drought usually occurs following periods of extended precipitation shortfalls.
- Socioeconomic drought occurs when a drought impacts health, well-being, and quality of life, or when a drought starts to have an adverse economic impact on a region.

In Yolo County, the Yolo County Flood Control and Water Conservation District is the General Maintaining Agency under the Sustainable Groundwater Management Act (SGMA). Through SGMA, the groundwater user community will decide what types of rules will, or will not, be enacted to protect groundwater resources.

Reclamation District 108 has numerous groundwater wells that are at risk of drying up from drought.

B.4. & C.2. PARTICPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

Yolo County has participated in the National Flood Insurance Program (NFIP) since December 16, 1980 and continues to comply but there are no National Flood Insurance Program insured structures within RD 108, the Sacramento River West Side Levee District, or the Knights Landing Ridge Drainage District that are managed by RD 108.

To address participation and continued compliance with the NFIP the participating jurisdictions in the Yolo County HMP will continue to enforce and adopt floodplain management requirements, regulate new construction in special flood hazard areas, update maps for better identification of floodplains and floodplain management programs and activities.

C.1.a. & C.1.b. EXISTING AUTHORITIES, POLICIES, PROGRAMS, AND RESOURCES

A number of federal, state and local regulations and policies form the legal framework to implement Yolo County's and its participating jurisdictions hazard mitigation goals and projects.

Federal Laws

- "The Federal Civil Defense Act of 1950"
- Public Law 96-342 "The Improved Civil Defense Act of 1980"

- Public Law 91-606 "Disaster Relief Act"
- Public Law 93-288 "The Robert T. Stafford Disaster Relief Act of 1974"
- Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act
- Public Law 106-390 enacted by Section 104 of the Disaster Mitigation Act of 2000 (DMA)
- Interim Final Rule for DMA 2002 as published in the February 26, 2002, at 44 CFR Part 201

State Laws & Plans

California Government Code, Section 3100, Title 1, Division 4, Chapter 4.

States those public employees are disaster service workers, subject to such disaster service activities as may be assigned to them by their superiors or by law. The term "public employees" includes all persons employed by the state or any county, city, city and county, state agency or public district, excluding aliens legally employed.

The law applies when:

- A local emergency has been proclaimed.
- A state of emergency has been proclaimed.
- A federal disaster declaration has been made.

This Section: Provides the basic authorities for conducting emergency operations following a proclamation of *Local Emergency*, *State of Emergency*, or *State of War Emergency*, by the Governor and/or appropriate local authorities, consistent with the provisions of this Act.

The California Emergency Plan - Revised

Promulgated by the Governor, and published in accordance with the Emergency Services Act, the Plan provides overall statewide authorities and responsibilities, and describes the functions and operations of government at all levels during extraordinary emergencies, including wartime.

Section 8568 of the Act states, in part, that "...the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." Local emergency plans are, therefore, considered to be extensions of the California Emergency Plan.

California Civil Code, Chapter 9, Section 1799.102

This section of the California Civil Code provides for "Good Samaritan Liability" for those providing emergency care at the scene of an emergency. Specifically: "No person, who, in good faith and not for compensation, renders emergency care at the scene of an emergency, shall be liable for any civil damages resulting from any act or omission. The scene of an emergency shall not include emergency departments and other places where medical care is usually offered."

Operational Area Governmental Authorities - Local Codes and Ordinances

Local and tribal government codes, ordinances, and executive policies are identified within individual community information profiles. Reclamation Districts are covered under Division 15 of the California Water Code.

The County CAO and jurisdictional City Managers noted in this document serve as the Directors of Emergency Services for their respective areas by law, ordinance and Municipal Code. The Board of Supervisors, City Councils, Tribal Council or Special District Board of Directors serve as the administering agency and the promulgation authority for all plans, policies and procedures within Yolo County and its member jurisdictions. The county and participating jurisdictions recognizes the enhanced Hazard Mitigation Plan of the State of California, the California Emergency Services Act,

and the appropriate Federal Regulations including 44 CFR 201. Yolo County is subject to the State of California Uniformed Building Code (UBC), which dictates standards on all current and future construction within Yolo County.

In support of expanding on and improving their existing policies and programs, Yolo County and each of its participating jurisdictions will continue to review and assess local hazard mitigation needs and capacities in conjunction with this plan and other supporting documents and information. RD 108 will work with the Yolo County HMP Steering Committee to identify new hazard mitigation strategies to be pursued on an operational area and local basis, and to review the progress and implementation of those policies and programs already identified. Yolo County and each of its participating jurisdictions will continue to process supplemental and supporting hazard mitigation reference information and guidance as released by the state and/or FEMA in support of its hazard mitigation goals and objectives.

C.6.a., C6.b., & C6.c. REVIEW and INCORPORATION of EXISTING PLANS

Yolo County planning efforts are supportive of each other. Information from the Yolo County HMP is incorporated into and used to support the Yolo County General Plan, Yolo County Climate Action Plan, Yolo County Emergency Operations Plan, and the continuity plans for each County and jurisdictional department. Many of these planning efforts incorporate all Yolo County jurisdictions and special districts (i.e. flood response plans for each city and Reclamation District with their input). Yolo County provides emergency planning services to all four cities in Yolo County, the Yocha Dehe Wintun Nation, and the Housing Authority of Yolo County; information from the HMP (including the risk assessment) is incorporated into each of their Emergency Operations Plans and accompanying annexes as well as their continuity plans. Information from several of these plans were used to support the Yolo County HMP as well.

State Hazard Mitigation Plan (SHMP) - 2018

The State Hazard Mitigation Plan (SHMP) identifies policy, establishes goals, and stipulates actions associated with the implementation of enhanced hazard mitigation strategies for California. The SHMP is foundational for local government hazard mitigation planning efforts, and provides inter-organizational guidance and direction based upon established state agency actions and principles.

Yolo County Operational Area Governmental Plans

The Yolo County HMP will be used to focus project prioritization. Mitigation projects will be considered for funding through federal and state grant programs, and when other funds are made available through the County and or federal government. The Yolo County OES will be the coordinating agency for project implementation. Individual jurisdictions have the capacity to organize resources, prepare grant applications, and oversee project implementation, monitoring, and evaluation. Coordinating organizations may include local, county, or regional agencies that are capable of, or responsible for, implementing activities and programs. Yolo County OES will be responsible for mitigation project administration with Yolo County and will assist each submitting jurisdiction named in this plan with their mitigation project administration.

2030 General Plan

The 2030 General Plan provides comprehensive and long-term policies for the physical development of the county and is often referred to as “the constitution” for local government. This is only the third time in the county’s history that the General Plan has been comprehensively updated, and the first time since 1983. While the fundamental goals of promoting agriculture, enhancing open space, and creating sustainable communities are the same as they have been over the past 50 years, the circumstances facing the county have changed. Issues such as the global

economy, climate change, and the role of local government create new challenges to maintaining the county's historic vision. The 2030 General Plan charts a course for the county over the next twenty years that will achieve its goals and address these concerns. The General Plan separates action items that will implement the variety of programs needed to realize the county's vision, this plan works in coordination with the 2012 revision of the Operational Area Multi-jurisdictional Hazard Mitigation Plan.

Climate Change Action Plan

The Climate Action Plan represents a significant milestone for Yolo County, which has a long history of being in the forefront of the green movement with land use policies that emphasize growth management, open space preservation and agricultural protection. In 1982, Yolo County adopted an Energy Plan, which was one of the first of its kind. In 1985, the county landfill completed a gas-to-energy facility, which generates 20,000 kilowatt hours per year and captures 90% of methane emissions.

In 2007, Yolo County became one of 12 charter members from throughout the country to sponsor the Cool Counties Initiative, which pledges each county collectively to reduce greenhouse gas emissions by 80% by 2050. That same year, the county organized local cities, special districts and UC Davis to form the Yolo County Climate Change Compact, providing an ongoing forum for exchanging information on how best to analyze and address greenhouse gas emissions.

In 2009, Yolo County adopted its 2030 General Plan, which contains more than 350 policies that deal with climate change, including the requirement to develop a Climate Action Plan. In addition to implementing General Plan policy, the Climate Action Plan also fulfills the requirements of state legislation, including Assembly Bill 32, Senate Bills 97 and 375, and Executive Order S-3-05.

The Climate Action Plan estimates that in 2008, the unincorporated area (excluding UC Davis, the Yocha Dehe Wintun Nation and special districts) produced 651,470 metric tons of carbon dioxide equivalents, or greenhouse gasses. Approximately 48% of those emissions are created by agriculture. Transportation and energy account for an additional 47%, with the remainder made up by such sectors as the landfill, wastewater treatment, construction, mining and stationary sources.

A target is established in the Climate Action Plan to reduce the 2008 emissions back to the levels estimated for 1990, or 613,651 metric tons. To achieve this target, 15 programs are proposed, including such measures as increasing renewable energy production, enhancing energy and water conservation, expanding alternative transportation, planting trees and reducing fertilizer application. In order to meet the reductions envisioned in the Cool Counties Initiative and state legislation, the Climate Action Plan also includes voluntary goals to reduce greenhouse emissions to 447,965 metric tons by 2030, and 122,730 metric tons by 2050.

C.4.a., C.5.b., & D.2 PROJECT LIST

The Yolo County HMP was revised to reflect progress in local mitigation efforts. Mitigation projects were selected for each hazard and for each jurisdiction based off the hazard risk assessment. The projects are supported by the mitigation goals and objectives, and are ranked using the following criteria; approximate cost, timeframe of completion, whether the project requires Board of Supervisors regulatory action, and an assumption as to whether or not the project would be subject

to CEQA or NEPA requirements. Funding sources are identified for all projects. All projects consider new, future, and existing development.

A cost benefit review process will be completed for each project that will be submitted during a given fiscal year as part of the grant application. The general priorities of the cost benefit risk analysis will focus on projects that are lifesaving, life safety, property protection and lastly environmental protection. A ratio of at least on dollar of benefit for each dollar invested will be considered the minimum cost benefit ratio for any projects submitted within Yolo County and its participating jurisdictions.

Full descriptions of each mitigation project are found in the table below.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
Emergency Generator – District Office	Yolo County (RD108)	NEW (2017)	\$65,000 PDM, HMGP	2019	Design complete
FLOODING/LEVEE FAILURE					
Emergency Generator – Pump Stations	Yolo County (RD108)	NEW (2017)	\$70,000 PDM, HMGP	2020	Design Initiated
Stabilization of Colusa Basin Drain Levee	Yolo County (RD108)	NEW (2017)	\$3M DWR grant PDM, HMGP	2022	Problem identification
Seepage Mitigation of Sacramento River Levee	Yolo County (Sacramento River West Side Levee District)	NEW (2017)	\$8M DWR grant, local cost share PDM, HMGP	2019	Design and Permitting initiated
Hardening of Sacramento River Levee	Yolo County (Sacramento River West Side Levee District)	NEW (2017)	\$5M DWR grant PDM, HMGP	2022	Problem identification
Hardening of Knights Landing Ridge Cut Levee	Yolo County (Knights Landing Ridge Drainage District)	NEW (2017)	\$3M DWR grant PDM, HMGP	2022	Problem identification
Hardening of Colusa Basin Drain Levee	Yolo County (RD 108)	NEW (2017)	\$1M DWR grant PDM, HMGP	2023	Problem identification

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
Invasive Species Removal in Canals	Yolo County (RD108)	NEW (2017)	\$100,000 PDM, HMGP	Ongoing	Ongoing
Flood Basin Segmentation	Yolo County (Knights Landing Ridge Drainage District)	NEW (2017)	\$10M DWR grant PDM, HMGP	2022	Study initiated
DROUGHT					
Groundwater Wells	Yolo County (RD108)	NEW (2017)	\$1M USBR, PDM, HMGP	2019	Study initiated



Reclamation District 900

Special District Profile Information

Addendum to the 2018 Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

December 2018

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A1.b. & A1.c. PARTICIPATION IN THE HAZARD MITIGATION PLAN

The jurisdictions participating in the Yolo County Hazard Mitigation Plan include:

County of Yolo

David M. Block, OES Emergency Services Planner, Office of Emergency Services, County of Yolo

City of Davis

Daryl C. Arbuthnott, Fire Chief, Fire Department, City of Davis

City of West Sacramento

Bryan Jonson, Fire Marshal, Fire Department, City of West Sacramento

City of Winters

Dan McGuire, Executive Assistant, City Manager's Office, City of Winters

City of Woodland

Becky Ramirez, Fire Chief, Woodland Fire Department, City of Woodland

Yocha Dehe Wintun Nation

Gary Fredericksen, Fire Chief, Yocha Dehe Fire Department, Yocha Dehe Wintun Nation

Housing Authority of Yolo County

Janis Holt, General Managing Director, Housing Authority of Yolo County

Reclamation District 108 (including sister Districts: Sacramento River West Side Levee District and Knights Landing Ridge Drainage District)

Meegan Nagy, Deputy Manager, RD 108

Reclamation District 900

Kenric Jameson, District Manager, RD 900

Reclamation District 2035

Mike Hall, CPG Farm Manager, RD 2035

Yolo County Flood Control & Water Conservation District

Kristin Sicke, Assistant General Manager, YCFCWCD

For those Reclamation Districts that were unable to physically be present at meetings, the Yolo County Office of Emergency Services talked with each of them throughout the planning process on their mitigation strategies. They provided information directly to help build and update their respective profiles.

B1.a. & B3.b. HAZARD DESCRIPTION and VULNERABILITY

Reclamation District 900 identified hazards that affect District based upon the countywide risk assessment, past events and their impacts. Definitions for the rankings and a detailed explanation of the hazards can be found in Element B: Hazard Identification and Risk Assessment of the Yolo County MHMP Base Plan.

RD 900—Hazard Profiles

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Flood	Likely	Catastrophic
Levee Failure	Unlikely	Catastrophic

Flooding

Flooding is the rising and overflowing of a body of water onto normally dry land. History clearly highlights floods as the most frequent natural hazard impacting Yolo County. Floods are among the costliest natural disasters in terms of human hardship and economic loss nationwide. Floods can cause substantial damage to structures, landscapes, and utilities as well as life safety issues. Floodwaters can transport large objects downstream, which can damage or remove stationary structures. Ground saturation can result in instability, collapse, or other damage. Objects can also be buried or destroyed through sediment deposition. Floodwaters can also break utilities lines and interrupt services. Standing water can cause damage to crops, road, foundations, and electrical circuits. Certain health hazards are also common to flood events. Standing water can also cause septic tank failure and well contamination. Standing water and wet structures can become breeding grounds for microorganisms such as bacteria, mold, and viruses. This can cause disease, trigger allergic reactions, and damage materials long after the flood. When floodwaters contain sewage or decaying animal carcasses, infections become a concern. Direct impacts, such as drowning, can be limited with adequate warning and public education about what to do during floods. Where flooding occurs in populated areas, warning and evacuation will be of critical importance to reduce life and safety impacts from any type of flooding.

Certain health hazards are also common to flood events. While such problems are often not reported, three general types of health hazards accompany floods. The first comes from the water itself. Floodwaters carry anything that was on the ground that the upstream runoff picked up, including dirt, oil, animal waste, and lawn, farm and industrial chemicals. Pastures and areas where cattle and other livestock are kept or their wastes are stored can contribute polluted waters to the receiving streams. Floodwaters also saturate the ground, which leads to infiltration into sanitary sewer lines. When wastewater treatment plants are flooded, there is nowhere for the sewage to flow. Infiltration and lack of treatment can lead to overloaded sewer lines that can back up into low-lying areas and homes. Even when it is diluted by flood waters, raw sewage can be a breeding ground for bacteria such as e. coli and other disease causing agents.

The area adjacent to a channel is the floodplain. Floodplains are illustrated on inundation maps, which show areas of potential flooding and water depths. In its common usage, the floodplain most often refers to that area that is inundated by the 100-year flood, the flood that has a one percent chance in any given year of being equaled or exceeded. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program. The 200-year flood is one that has 0.5% chance of being equaled or exceeded each year. The 500-year flood is the flood that has a 0.2 percent chance of being equaled or exceeded in any given year. The potential for flooding can change and increase through various land use changes and changes to land surface, which result in a change to the floodplain. A change in environment can create localized flooding problems inside and outside of natural floodplains by altering or confining natural drainage channels. These changes are most often created by human activity.

Yolo County and its Reclamation Districts are susceptible to various types of flood events: Riverine flooding – Riverine flooding, defined as when a watercourse exceeds its “bank-full” capacity, generally occurs as a result of prolonged rainfall, or rainfall that is combined with snowmelt and/or already saturated soils from previous rain events. This type of flood occurs in river systems whose tributaries may drain large geographic areas and include one or more independent river basins. The onset and duration of riverine floods may vary from a few hours to many days and is often characterized by high peak flows combined with a large volume of runoff. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution, the amount of soil moisture, seasonal variation in vegetation, snow depth, and water-resistance of the surface due to urbanization. In Yolo County, riverine flooding can occur anytime from November through April and is largely caused by heavy and continued rains, sometimes combined with snowmelt, increased outflows from upstream dams, and heavy flow from tributary streams. These intense storms can overwhelm the local waterways as well as the integrity of flood control structures. Flooding is more severe when antecedent rainfall has resulted in saturated ground conditions. The warning time associated with slow rise riverine floods assists in life and property protection

Flash flooding – Flash flooding describes localized floods of great volume and short duration. This type of flood usually results from a heavy rainfall on a relatively small drainage area. Precipitation of this sort usually occurs in the winter and spring. Flash floods often require immediate evacuation within the hour and thus early threat identification and warning is critical for saving lives.

Localized/Stormwater flooding – Localized flooding problems are often caused by flash flooding, severe weather, or an unusual amount of rainfall. Flooding from these intense weather events usually occurs in areas experiencing an increase in runoff from impervious surfaces associated with development and urbanization as well as inadequate storm drainage systems.

A weather pattern called the “Atmospheric River” contributes to the flooding potential of the area. An Atmospheric River brings warm air and rain to West. A relatively common weather pattern brings southwest winds to the Pacific Northwest or California, along with warm, moist air. The moisture sometimes produces many days of heavy rain, which can cause extensive flooding. The warm air also can melt the snow pack in the mountains, which further aggravates the flooding potential. In the colder parts of the year, the warm air can be cooled enough to produce heavy, upslope snow as it rises into the higher elevations of the Sierra Nevada or Cascades. Forecasters and others on the West Coast often used to refer to this warm, moist air as the “Pineapple Express” because it comes from around Hawaii where pineapples are grown.

Levee Failure

Levee failure flooding can occur as the result of partial or complete collapse or underseepage of an impoundment, and often results from prolonged rainfall and flooding. The primary danger associated with dam or levee failure is the high velocity flooding of those properties downstream of the breach.

A levee failure can range from a small, uncontrolled release to a catastrophic failure. Vulnerability to levee failures is generally confined to the areas subject to inundation downstream of the facility. Secondary losses would include loss of the multi-use functions of the facility and associated revenues that accompany those functions.

Approximately 150 years ago, the levees of the Sacramento-San Joaquin Delta were raised to prevent flooding on what remains some of the most fertile farmland in the nation. While the peat

soils were excellent for agriculture, they were not the best choice to create strong foundations for levee barriers meant to contain a constant flow of river water. Nevertheless, it was these native soils that were primarily used to create the levee system.

Levee failure flooding would vary in the County depending on which structure fails and the nature and extent of the failure and associated flooding. This flooding presents a threat to life and property, including buildings, their contents, and their use. Large flood events can affect lifeline utilities (e.g., water, sewerage, and power), transportation, jobs, tourism, the environment, agricultural industry, and the local and regional economies.

Lands within the Levee Flood Protection Zones may be subject to flooding due to various factors, including the failure or overtopping of project or non-project levees, flows that exceed the design capacity of project or non-project levees, and flows from water sources not specifically protected against by project levees. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with U.S. Army Corps of Engineers guidelines. Lands not mapped within a Levee Flood Protection Zone are not invulnerable to flood risk, and some may also experience flooding from these or other related events.

Reclamation District 900 is an independent special district that maintains the majority of the levees that surround West Sacramento. The district overlies approximately two-thirds of the City and has an estimated population of 40,000 people that would be vulnerable to a levee failure. This area includes several city fire stations and schools as well as the city police station and the Port of West Sacramento. RD 900 is bound by the Southern Pacific Railroad embankment on the north, the Sacramento River on the east, Shangri-La Slough on the south, and the Deep Water Ship Channel (DWSC) on the west. The DWSC also bisects RD 900 into two district areas.

B.4. & C.2. PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

Yolo County has participated in the National Flood Insurance Program (NFIP) since December 16, 1980 and the City of West Sacramento has participated in the NFIP since 1987; both continue to comply but there are no National Flood Insurance Program insured structures within RD 900 that are managed by the District.

To address participation and continued compliance with the NFIP the participating jurisdictions in the Yolo County HMP will continue to enforce and adopt floodplain management requirements, regulate new construction in special flood hazard areas, update maps for better identification of floodplains and floodplain management programs and activities.

C.1.a. & C.1.b. EXISTING AUTHORITIES, POLICIES, PROGRAMS, AND RESOURCES

A number of federal, state and local regulations and policies form the legal framework to implement Yolo County's and its participating jurisdictions hazard mitigation goals and projects.

Federal Laws

- "The Federal Civil Defense Act of 1950"
- Public Law 96-342 "The Improved Civil Defense Act of 1980"
- Public Law 91-606 "Disaster Relief Act"
- Public Law 93-288 "The Robert T. Stafford Disaster Relief Act of 1974"
- Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act

- Public Law 106-390 enacted by Section 104 of the Disaster Mitigation Act of 2000 (DMA)
- Interim Final Rule for DMA 2002 as published in the February 26, 2002, at 44 CFR Part 201

State Laws & Plans

California Government Code, Section 3100, Title 1, Division 4, Chapter 4.

States those public employees are disaster service workers, subject to such disaster service activities as may be assigned to them by their superiors or by law. The term "public employees" includes all persons employed by the state or any county, city, city and county, state agency or public district, excluding aliens legally employed.

The law applies when:

- A local emergency has been proclaimed.
- A state of emergency has been proclaimed.
- A federal disaster declaration has been made.

This Section: Provides the basic authorities for conducting emergency operations following a proclamation of *Local Emergency*, *State of Emergency*, or *State of War Emergency*, by the Governor and/or appropriate local authorities, consistent with the provisions of this Act.

The California Emergency Plan - Revised

Promulgated by the Governor, and published in accordance with the Emergency Services Act, the Plan provides overall statewide authorities and responsibilities, and describes the functions and operations of government at all levels during extraordinary emergencies, including wartime.

Section 8568 of the Act states, in part, that "...the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." Local emergency plans are, therefore, considered to be extensions of the California Emergency Plan.

California Civil Code, Chapter 9, Section 1799.102

This section of the California Civil Code provides for "Good Samaritan Liability" for those providing emergency care at the scene of an emergency. Specifically: "No person, who, in good faith and not for compensation, renders emergency care at the scene of an emergency, shall be liable for any civil damages resulting from any act or omission. The scene of an emergency shall not include emergency departments and other places where medical care is usually offered."

Operational Area Governmental Authorities - Local Codes and Ordinances

Local and tribal government codes, ordinances, and executive policies are identified within individual community information profiles. Reclamation Districts are covered under Division 15 of the California Water Code.

The County CAO and jurisdictional City Managers noted in this document serve as the Directors of Emergency Services for their respective areas by law, ordinance and Municipal Code. The Board of Supervisors, City Councils, Tribal Council or Special District Board of Directors serve as the administering agency and the promulgation authority for all plans, policies and procedures within Yolo County and its member jurisdictions. The county and participating jurisdictions recognizes the enhanced Hazard Mitigation Plan of the State of California, the California Emergency Services Act, and the appropriate Federal Regulations including 44 CFR 201. Yolo County is subject to the State of California Uniformed Building Code (UBC), which dictates standards on all current and future construction within Yolo County.

In support of expanding on and improving their existing policies and programs, Yolo County and each of its participating jurisdictions will continue to review and assess local hazard mitigation needs and capacities in conjunction with this plan and other supporting documents and information. RD 900 will work with the Yolo County HMP Steering Committee to identify new hazard mitigation strategies to be pursued on an operational area and local basis, and to review the progress and implementation of those policies and programs already identified. Yolo County and each of its participating jurisdictions will continue to process supplemental and supporting hazard mitigation reference information and guidance as released by the state and/or FEMA in support of its hazard mitigation goals and objectives.

C.6.a., C6.b., & C6.c. REVIEW and INCORPORATION of EXISTING PLANS

Yolo County planning efforts are supportive of each other. Information from the Yolo County HMP is incorporated into and used to support the Yolo County General Plan, Yolo County Climate Action Plan, Yolo County Emergency Operations Plan, and the continuity plans for each County and jurisdictional department. Many of these planning efforts incorporate all Yolo County jurisdictions and special districts (i.e. flood response plans for each city and Reclamation District with their input). Yolo County provides emergency planning services to all four cities in Yolo County, the Yocha Dehe Wintun Nation, and the Housing Authority of Yolo County; information from the HMP (including the risk assessment) is incorporated into each of their Emergency Operations Plans and accompanying annexes as well as their continuity plans. Information from several of these plans were used to support the Yolo County HMP as well.

State Hazard Mitigation Plan (SHMP) - 2018

The State Hazard Mitigation Plan (SHMP) identifies policy, establishes goals, and stipulates actions associated with the implementation of enhanced hazard mitigation strategies for California. The SHMP is foundational for local government hazard mitigation planning efforts, and provides inter-organizational guidance and direction based upon established state agency actions and principles.

Yolo County Operational Area Governmental Plans

The Yolo County HMP will be used to focus project prioritization. Mitigation projects will be considered for funding through federal and state grant programs, and when other funds are made available through the County and or federal government. The Yolo County OES will be the coordinating agency for project implementation. Individual jurisdictions have the capacity to organize resources, prepare grant applications, and oversee project implementation, monitoring, and evaluation. Coordinating organizations may include local, county, or regional agencies that are capable of, or responsible for, implementing activities and programs. Yolo County OES will be responsible for mitigation project administration with Yolo County and will assist each submitting jurisdiction named in this plan with their mitigation project administration.

2030 General Plan

The 2030 General Plan provides comprehensive and long-term policies for the physical development of the county and is often referred to as “the constitution” for local government. This is only the third time in the county’s history that the General Plan has been comprehensively updated, and the first time since 1983. While the fundamental goals of promoting agriculture, enhancing open space, and creating sustainable communities are the same as they have been over the past 50 years, the circumstances facing the county have changed. Issues such as the global economy, climate change, and the role of local government create new challenges to maintaining the county’s historic vision. The 2030 General Plan charts a course for the county over the next twenty years that will achieve its goals and address these concerns. The General Plan separates action items that will implement the variety of programs needed to realize the county’s vision, this

plan works in coordination with the 2012 revision of the Operational Area Multi-jurisdictional Hazard Mitigation Plan.

Climate Change Action Plan

The Climate Action Plan represents a significant milestone for Yolo County, which has a long history of being in the forefront of the green movement with land use policies that emphasize growth management, open space preservation and agricultural protection. In 1982, Yolo County adopted an Energy Plan, which was one of the first of its kind. In 1985, the county landfill completed a gas-to-energy facility, which generates 20,000 kilowatt hours per year and captures 90% of methane emissions.

In 2007, Yolo County became one of 12 charter members from throughout the country to sponsor the Cool Counties Initiative, which pledges each county collectively to reduce greenhouse gas emissions by 80% by 2050. That same year, the county organized local cities, special districts and UC Davis to form the Yolo County Climate Change Compact, providing an ongoing forum for exchanging information on how best to analyze and address greenhouse gas emissions.

In 2009, Yolo County adopted its 2030 General Plan, which contains more than 350 policies that deal with climate change, including the requirement to develop a Climate Action Plan. In addition to implementing General Plan policy, the Climate Action Plan also fulfills the requirements of state legislation, including Assembly Bill 32, Senate Bills 97 and 375, and Executive Order S-3-05.

The Climate Action Plan estimates that in 2008, the unincorporated area (excluding UC Davis, the Yocha Dehe Wintun Nation and special districts) produced 651,470 metric tons of carbon dioxide equivalents, or greenhouse gasses. Approximately 48% of those emissions are created by agriculture. Transportation and energy account for an additional 47%, with the remainder made up by such sectors as the landfill, wastewater treatment, construction, mining and stationary sources.

A target is established in the Climate Action Plan to reduce the 2008 emissions back to the levels estimated for 1990, or 613,651 metric tons. To achieve this target, 15 programs are proposed, including such measures as increasing renewable energy production, enhancing energy and water conservation, expanding alternative transportation, planting trees and reducing fertilizer application. In order to meet the reductions envisioned in the Cool Counties Initiative and state legislation, the Climate Action Plan also includes voluntary goals to reduce greenhouse emissions to 447,965 metric tons by 2030, and 122,730 metric tons by 2050.

C.4.a., C.5.b., & D.2 PROJECT LIST

The Yolo County HMP was revised to reflect progress in local mitigation efforts. Mitigation projects were selected for each hazard and for each jurisdiction based off the hazard risk assessment. The projects are supported by the mitigation goals and objectives, and are ranked using the following criteria; approximate cost, timeframe of completion, whether the project requires Board of Supervisors regulatory action, and an assumption as to whether or not the project would be subject to CEQA or NEPA requirements. Funding sources are identified for all projects. All projects consider new, future, and existing development.

A cost benefit review process will be completed for each project that will be submitted during a given fiscal year. The general priorities of the cost benefit risk analysis will focus on projects that

are lifesaving, life safety, property protection and lastly environmental protection. A ratio of at least one dollar of benefit for each dollar invested will be considered the minimum cost benefit ratio for any projects submitted within Yolo County and its participating jurisdictions.

Full descriptions of each mitigation project are found in the table below.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
ALL HAZARDS					
Backup Generator	Yolo County (RD 900)	NEW (2017)	\$1,700,000 HMGP	2020	Timeframe dependent upon HMGP grant award
FLOODING/LEVEE FAILURE					
Hardening of Blacker Canal Bank	Yolo County (RD 900)	NEW (2017)	\$1,500,000 HMGP	2021	Timeframe dependent upon HMGP grant award
SCADA Implementation	Yolo County (RD 900)	NEW (2017)	\$900,000 HMGP	2020	Timeframe dependent upon HMGP grant award
Hardening of Bridgeway Lakes Drainage Canal	Yolo County (RD 900)	NEW (2017)	Cost being developed HMGP	2018	Timeframe dependent upon HMGP grant award



Reclamation District 2035

Special District Profile Information

Addendum to the 2018 Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

December 2018

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City of Woodland

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Reclamation District 108 (including sister Districts: Sacramento River West Side Levee District and Knights Landing Ridge Drainage District)

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Kenric Jameson, District Manager, RD 900

Reclamation District 2035

Mike Hall, CPG Farm Manager, RD 2035

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For those Reclamation Districts that were unable to physically be present at meetings, the Yolo County Office of Emergency Services talked with each of them throughout the planning process on their mitigation strategies. They provided information directly to help build and update their respective profiles.

B1.a. & B3.b. HAZARD DESCRIPTION and VULNERABILITY

Reclamation District 2035 identified hazards that affect District based upon the countywide risk assessment, past events and their impacts. Definitions for the rankings and a detailed explanation of the hazards can be found in Element B: Hazard Identification and Risk Assessment of the Yolo County MHMP Base Plan.

RD 2035—Hazard Profiles

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
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Levee Failure	Unlikely	Catastrophic

Flooding

Flooding is the rising and overflowing of a body of water onto normally dry land. History clearly highlights floods as the most frequent natural hazard impacting Yolo County. Floods are among the costliest natural disasters in terms of human hardship and economic loss nationwide. Floods can cause substantial damage to structures, landscapes, and utilities as well as life safety issues.

Floodwaters can transport large objects downstream, which can damage or remove stationary structures. Ground saturation can result in instability, collapse, or other damage. Objects can also be buried or destroyed through sediment deposition. Floodwaters can also break utilities lines and interrupt services. Standing water can cause damage to crops, road, foundations, and electrical circuits. Certain health hazards are also common to flood events. Standing water can also cause septic tank failure and well contamination. Standing water and wet structures can become breeding grounds for microorganisms such as bacteria, mold, and viruses. This can cause disease, trigger allergic reactions, and damage materials long after the flood. When floodwaters contain sewage or decaying animal carcasses, infections become a concern. Direct impacts, such as drowning, can be limited with adequate warning and public education about what to do during floods. Where flooding occurs in populated areas, warning and evacuation will be of critical importance to reduce life and safety impacts from any type of flooding.

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Yolo County and its Reclamation Districts are susceptible to various types of flood events:

Riverine flooding – Riverine flooding, defined as when a watercourse exceeds its “bank-full” capacity, generally occurs as a result of prolonged rainfall, or rainfall that is combined with snowmelt and/or already saturated soils from previous rain events. This type of flood occurs in river systems whose tributaries may drain large geographic areas and include one or more independent river basins. The onset and duration of riverine floods may vary from a few hours to many days and is often characterized by high peak flows combined with a large volume of runoff. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution, the amount of soil moisture, seasonal variation in vegetation, snow depth, and water-resistance of the surface due to urbanization. In Yolo County, riverine flooding can occur anytime from November through April and is largely caused by heavy and continued rains, sometimes combined with snowmelt, increased outflows from upstream dams, and heavy flow from tributary streams. These intense storms can overwhelm the local waterways as well as the integrity of flood control structures. Flooding is more severe when antecedent rainfall has resulted in saturated ground conditions. The warning time associated with slow rise riverine floods assists in life and property protection

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A weather pattern called the “Atmospheric River” contributes to the flooding potential of the area. An Atmospheric River brings warm air and rain to West. A relatively common weather pattern brings southwest winds to the Pacific Northwest or California, along with warm, moist air. The moisture sometimes produces many days of heavy rain, which can cause extensive flooding. The warm air also can melt the snow pack in the mountains, which further aggravates the flooding potential. In the colder parts of the year, the warm air can be cooled enough to produce heavy, upslope snow as it rises into the higher elevations of the Sierra Nevada or Cascades. Forecasters and others on the West Coast often used to refer to this warm, moist air as the “Pineapple Express” because it comes from around Hawaii where pineapples are grown.

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A levee failure can range from a small, uncontrolled release to a catastrophic failure. Vulnerability to levee failures is generally confined to the areas subject to inundation downstream of the facility. Secondary losses would include loss of the multi-use functions of the facility and associated revenues that accompany those functions.

Approximately 150 years ago, the levees of the Sacramento-San Joaquin Delta were raised to prevent flooding on what remains some of the most fertile farmland in the nation. While the peat soils were excellent for agriculture, they were not the best choice to create strong foundations for

levee barriers meant to contain a constant flow of river water. Nevertheless, it was these native soils that were primarily used to create the levee system.

Levee failure flooding would vary in the County depending on which structure fails and the nature and extent of the failure and associated flooding. This flooding presents a threat to life and property, including buildings, their contents, and their use. Large flood events can affect lifeline utilities (e.g., water, sewerage, and power), transportation, jobs, tourism, the environment, agricultural industry, and the local and regional economies.

Lands within the Levee Flood Protection Zones may be subject to flooding due to various factors, including the failure or overtopping of project or non-project levees, flows that exceed the design capacity of project or non-project levees, and flows from water sources not specifically protected against by project levees. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with U.S. Army Corps of Engineers guidelines. Lands not mapped within a Levee Flood Protection Zone are not invulnerable to flood risk, and some may also experience flooding from these or other related events.

Reclamation District 2035 – Conaway Tract comprises 12.1 miles of levee. The District is responsible for the levee maintenance and drainage services for approximately 20,500 acres of privately owned agricultural land. The Tract is located adjacent to the Yolo Bypass on the east and receives some inflow from the Cache Creek Settling Basin (CCSB) on the north. The District works in partnership with the City of Woodland to address flood issues that could impact the periphery of the City of Woodland. A breach on the northern segments of the Tract (north of County Road 25) may encroach on the east end of the City of Woodland, but is not expected to have severe impacts west of County Road 102. Floodwaters will generally flow south east and may begin to expand and backup against the southern Bypass levees near the junction with County Road 29.

Between 2011 and 2015, the DWR evaluated the West Levee of the Yolo Bypass as part of its Urban Levee Evaluation (ULE) and Non-Urban Levee Evaluation (NULE) Programs. These evaluations documented that the levee has seepage, slope stability and other deficiencies. Without remediation, the levee does not meet current USACE and DWR levee standards. A breach of the Yolo Bypass West Levee during a 200-year event would result in the floodplain depicted on the map in this document. Industrial and commercial properties (including the Walgreens Distribution Center, La Tourangelle, and Hewitt Packard) would be inundated at shallow depths. City of Woodland infrastructure, including the East Main Pump Station, South Canal Pump Station, Water Pollution Control Facility (WPCF), and East Regional Pond would also be inundated. Many of these facilities provide flood protection against interior flooding.

While a breach of the West Bypass Levee would not directly threaten the City of Davis, the City of Davis Wastewater Treatment Plant is particularly vulnerable. The plant is located less than a mile from the levee and is currently not protected by a berm, as the City of Woodland Wastewater Treatment Plant is. Inundation of the City of Davis Wastewater Treatment Plant would result in the loss of wastewater services for the City of Davis for several weeks.

B.4. & C.2. PARTICPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM

Yolo County has participated in the National Flood Insurance Program (NFIP) since December 16, 1980 but there are no National Flood Insurance Program insured structures within RD 2035 that are managed by the District.

To address participation and continued compliance with the NFIP the participating jurisdictions in the Yolo County HMP will continue to enforce and adopt floodplain management requirements, regulate new construction in special flood hazard areas, update maps for better identification of floodplains and floodplain management programs and activities.

C.1.a. & C.1.b. EXISTING AUTHORITIES, POLICIES, PROGRAMS, AND RESOURCES

A number of federal, state and local regulations and policies form the legal framework to implement Yolo County's and its participating jurisdictions hazard mitigation goals and projects.

Federal Laws

- "The Federal Civil Defense Act of 1950"
- Public Law 96-342 "The Improved Civil Defense Act of 1980"
- Public Law 91-606 "Disaster Relief Act"
- Public Law 93-288 "The Robert T. Stafford Disaster Relief Act of 1974"
- Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act
- Public Law 106-390 enacted by Section 104 of the Disaster Mitigation Act of 2000 (DMA)
- Interim Final Rule for DMA 2002 as published in the February 26, 2002, at 44 CFR Part 201

State Laws & Plans

California Government Code, Section 3100, Title 1, Division 4, Chapter 4.

States those public employees are disaster service workers, subject to such disaster service activities as may be assigned to them by their superiors or by law. The term "public employees" includes all persons employed by the state or any county, city, city and county, state agency or public district, excluding aliens legally employed.

The law applies when:

- A local emergency has been proclaimed.
- A state of emergency has been proclaimed.
- A federal disaster declaration has been made.

This Section: Provides the basic authorities for conducting emergency operations following a proclamation of *Local Emergency*, *State of Emergency*, or *State of War Emergency*, by the Governor and/or appropriate local authorities, consistent with the provisions of this Act.

The California Emergency Plan - Revised

Promulgated by the Governor, and published in accordance with the Emergency Services Act, the Plan provides overall statewide authorities and responsibilities, and describes the functions and operations of government at all levels during extraordinary emergencies, including wartime.

Section 8568 of the Act states, in part, that "...the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." Local emergency plans are, therefore, considered to be extensions of the California Emergency Plan.

California Civil Code, Chapter 9, Section 1799.102

This section of the California Civil Code provides for "Good Samaritan Liability" for those providing emergency care at the scene of an emergency. Specifically: "No person, who, in good faith and not for compensation, renders emergency care at the scene of an emergency, shall be liable for any civil

damages resulting from any act or omission. The scene of an emergency shall not include emergency departments and other places where medical care is usually offered."

Operational Area Governmental Authorities - Local Codes and Ordinances

Local and tribal government codes, ordinances, and executive policies are identified within individual community information profiles. Reclamation Districts are covered under Division 15 of the California Water Code.

The County CAO and jurisdictional City Managers noted in this document serve as the Directors of Emergency Services for their respective areas by law, ordinance and Municipal Code. The Board of Supervisors, City Councils, Tribal Council or Special District Board of Directors serve as the administering agency and the promulgation authority for all plans, policies and procedures within Yolo County and its member jurisdictions. The county and participating jurisdictions recognizes the enhanced Hazard Mitigation Plan of the State of California, the California Emergency Services Act, and the appropriate Federal Regulations including 44 CFR 201. Yolo County is subject to the State of California Uniformed Building Code (UBC), which dictates standards on all current and future construction within Yolo County.

In support of expanding on and improving their existing policies and programs, Yolo County and each of its participating jurisdictions will continue to review and assess local hazard mitigation needs and capacities in conjunction with this plan and other supporting documents and information. RD 2035 will work with the Yolo County HMP Steering Committee to identify new hazard mitigation strategies to be pursued on an operational area and local basis, and to review the progress and implementation of those policies and programs already identified. Yolo County and each of its participating jurisdictions will continue to process supplemental and supporting hazard mitigation reference information and guidance as released by the state and/or FEMA in support of its hazard mitigation goals and objectives.

C.6.a., C6.b., & C6.c. REVIEW and INCORPORATION of EXISTING PLANS

Yolo County planning efforts are supportive of each other. Information from the Yolo County HMP is incorporated into and used to support the Yolo County General Plan, Yolo County Climate Action Plan, Yolo County Emergency Operations Plan, and the continuity plans for each County and jurisdictional department. Many of these planning efforts incorporate all Yolo County jurisdictions and special districts (i.e. flood response plans for each city and Reclamation District with their input). Yolo County provides emergency planning services to all four cities in Yolo County, the Yocha Dehe Wintun Nation, and the Housing Authority of Yolo County; information from the HMP (including the risk assessment) is incorporated into each of their Emergency Operations Plans and accompanying annexes as well as their continuity plans. Information from several of these plans were used to support the Yolo County HMP as well.

State Hazard Mitigation Plan (SHMP) - 2018

The State Hazard Mitigation Plan (SHMP) identifies policy, establishes goals, and stipulates actions associated with the implementation of enhanced hazard mitigation strategies for California. The SHMP is foundational for local government hazard mitigation planning efforts, and provides inter-organizational guidance and direction based upon established state agency actions and principles.

Yolo County Operational Area Governmental Plans

The Yolo County HMP will be used to focus project prioritization. Mitigation projects will be considered for funding through federal and state grant programs, and when other funds are made available through the County and or federal government. The Yolo County OES will be the

coordinating agency for project implementation. Individual jurisdictions have the capacity to organize resources, prepare grant applications, and oversee project implementation, monitoring, and evaluation. Coordinating organizations may include local, county, or regional agencies that are capable of, or responsible for, implementing activities and programs. Yolo County OES will be responsible for mitigation project administration with Yolo County and will assist each submitting jurisdiction named in this plan with their mitigation project administration.

2030 General Plan

The 2030 General Plan provides comprehensive and long-term policies for the physical development of the county and is often referred to as “the constitution” for local government. This is only the third time in the county’s history that the General Plan has been comprehensively updated, and the first time since 1983. While the fundamental goals of promoting agriculture, enhancing open space, and creating sustainable communities are the same as they have been over the past 50 years, the circumstances facing the county have changed. Issues such as the global economy, climate change, and the role of local government create new challenges to maintaining the county’s historic vision. The 2030 General Plan charts a course for the county over the next twenty years that will achieve its goals and address these concerns. The General Plan separates action items that will implement the variety of programs needed to realize the county’s vision, this plan works in coordination with the 2012 revision of the Operational Area Multi-jurisdictional Hazard Mitigation Plan.

Climate Change Action Plan

The Climate Action Plan represents a significant milestone for Yolo County, which has a long history of being in the forefront of the green movement with land use policies that emphasize growth management, open space preservation and agricultural protection. In 1982, Yolo County adopted an Energy Plan, which was one of the first of its kind. In 1985, the county landfill completed a gas-to-energy facility, which generates 20,000 kilowatt hours per year and captures 90% of methane emissions.

In 2007, Yolo County became one of 12 charter members from throughout the country to sponsor the Cool Counties Initiative, which pledges each county collectively to reduce greenhouse gas emissions by 80% by 2050. That same year, the county organized local cities, special districts and UC Davis to form the Yolo County Climate Change Compact, providing an ongoing forum for exchanging information on how best to analyze and address greenhouse gas emissions.

In 2009, Yolo County adopted its 2030 General Plan, which contains more than 350 policies that deal with climate change, including the requirement to develop a Climate Action Plan. In addition to implementing General Plan policy, the Climate Action Plan also fulfills the requirements of state legislation, including Assembly Bill 32, Senate Bills 97 and 375, and Executive Order S-3-05.

The Climate Action Plan estimates that in 2008, the unincorporated area (excluding UC Davis, the Yocha Dehe Wintun Nation and special districts) produced 651,470 metric tons of carbon dioxide equivalents, or greenhouse gasses. Approximately 48% of those emissions are created by agriculture. Transportation and energy account for an additional 47%, with the remainder made up by such sectors as the landfill, wastewater treatment, construction, mining and stationary sources.

A target is established in the Climate Action Plan to reduce the 2008 emissions back to the levels estimated for 1990, or 613,651 metric tons. To achieve this target, 15 programs are proposed, including such measures as increasing renewable energy production, enhancing energy and water

conservation, expanding alternative transportation, planting trees and reducing fertilizer application. In order to meet the reductions envisioned in the Cool Counties Initiative and state legislation, the Climate Action Plan also includes voluntary goals to reduce greenhouse emissions to 447,965 metric tons by 2030, and 122,730 metric tons by 2050.

C.4.a., C.5.b., & D.2 PROJECT LIST

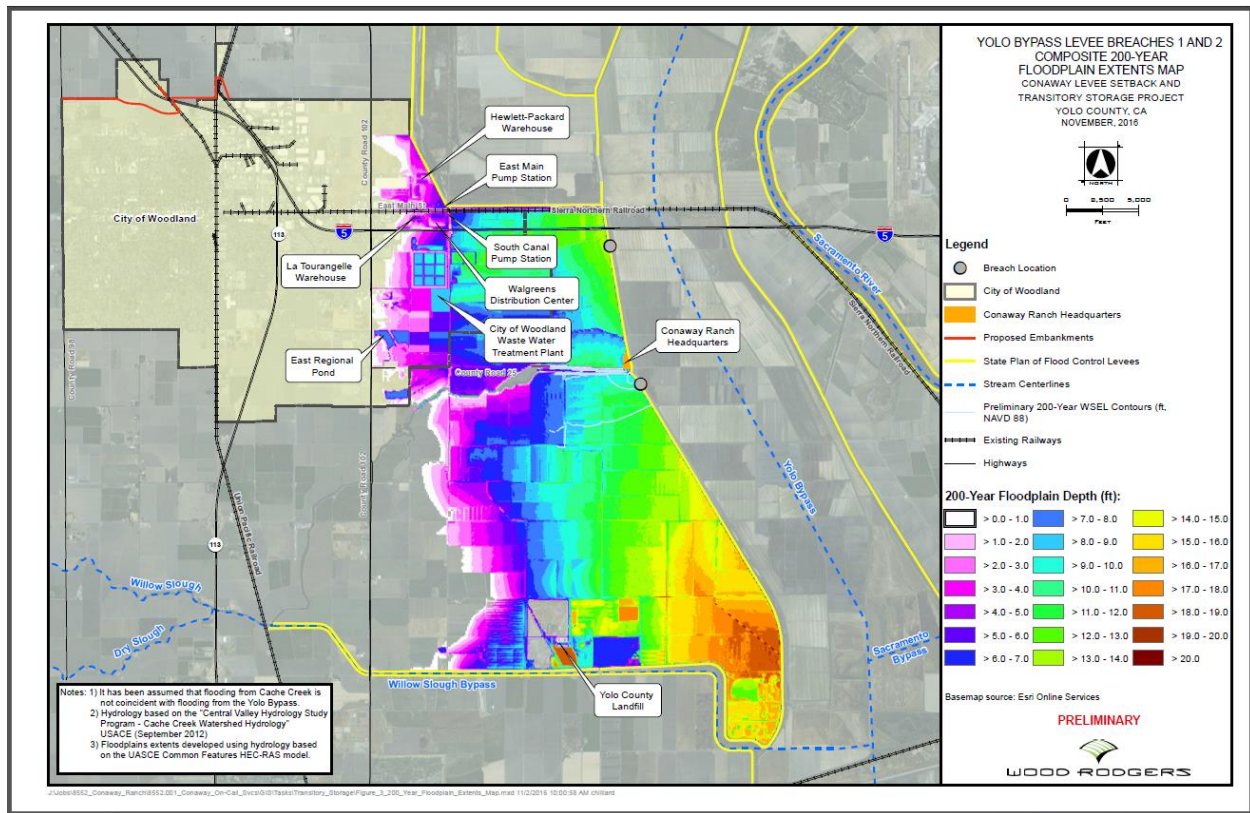
The Yolo County HMP was revised to reflect progress in local mitigation efforts. Mitigation projects were selected for each hazard and for each jurisdiction based off the hazard risk assessment. The projects are supported by the mitigation goals and objectives, and are ranked using the following criteria; approximate cost, timeframe of completion, whether the project requires Board of Supervisors regulatory action, and an assumption as to whether or not the project would be subject to CEQA or NEPA requirements. Funding sources are identified for all projects. All projects consider new, future, and existing development.

A cost benefit review process will be completed for each project that will be submitted during a given fiscal year. The general priorities of the cost benefit risk analysis will focus on projects that are lifesaving, life safety, property protection and lastly environmental protection. A ratio of at least two dollars of benefit for each dollar invested will be considered the minimum cost benefit ratio for any projects submitted within Yolo County and its participating jurisdictions.

Full descriptions of each mitigation project are found in the table below.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
FLOODING/LEVEE FAILURE					
Hardening of Cross Levee	Yolo County (RD 2035)	NEW (2017)	\$250,000 PDM, HMGP	2018	Ongoing
Siphon Upgrade	Yolo County (RD2035)	NEW (2017)	\$177,000 PDM, HMGP	2018	Ongoing

MAP





Y O L O C O U N T Y
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

Yolo County Flood Control & Water Conservation District

Special District Profile Information

Addendum to the 2018 Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

December 2018

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A1.b. & A1.c. PARTICIPATION IN THE HAZARD MITIGATION PLAN

The jurisdictions participating in the Yolo County Hazard Mitigation Plan include:

County of Yolo

David M. Block, OES Emergency Services Planner, Office of Emergency Services, County of Yolo

City of Davis

Daryl C. Arbuthnott, Fire Chief, Fire Department, City of Davis

City of West Sacramento

Bryan Jonson, Fire Marshal, Fire Department, City of West Sacramento

City of Winters

Dan McGuire, Executive Assistant, City Manager's Office, City of Winters

City of Woodland

Becky Ramirez, Fire Chief, Woodland Fire Department, City of Woodland

Yocha Dehe Wintun Nation

Gary Fredericksen, Fire Chief, Yocha Dehe Fire Department, Yocha Dehe Wintun Nation

Housing Authority of Yolo County

Janis Holt, General Managing Director, Housing Authority of Yolo County

Reclamation District 108 (including Sacramento West Side Levee District and Knights Landing Ridge Drainage District)

Meegan Nagy, Deputy Manager, RD 108

Reclamation District 900

Kenric Jameson, District Manager, RD 900

Reclamation District 2035

Mike Hall, CPG Farm Manager, RD 2035

Yolo County Flood Control & Water Conservation District

Kristin Sicke, Assistant General Manager, YCFCWCD

For those Special Districts that were unable to physically be present at meetings, the Yolo County Office of Emergency Services talked with each of them throughout the planning process on their mitigation strategies. They provided information directly to help build and update their respective profiles.

B1.a. & B3.b. HAZARD DESCRIPTION and VULNERABILITY

The Yolo County Flood Control & Water Conservation District (YCFCWCD) identified hazards that affect District based upon the countywide risk assessment, past events and their impacts.

Definitions for the rankings and a detailed explanation of the hazards can be found in Element B: Hazard Identification and Risk Assessment of the Yolo County MHMP Base Plan.

YCFWCWCD—Hazard Profiles

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude
Dam Failure	Unlikely	Catastrophic
Flood	Likely	Catastrophic
Levee Failure	Unlikely	Catastrophic
Wildfire	Likely	Critical
Drought	Likely	Critical

Dam Failure

Dams are manmade structures built for a variety of uses including flood protection, power generation, agriculture, water supply, and recreation. When dams are constructed for flood protection, they are usually engineered to withstand a flood with a computed risk of occurrence. For example, a dam may be designed to contain a flood at a location on a stream that has a certain probability of occurring in any one year. If prolonged periods of rainfall and flooding occur that exceed the design requirements, that structure may be overtopped and fail. Overtopping is the primary cause of earthen dam failure in the United States.

Dam failure is the uncontrolled release of impounded water from behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail. Dam failure causes downstream flooding that can affect life and property. Dam failures can result from any one or a combination of the following causes:

- Earthquake
- Inadequate spillway capacity resulting in excess overtopping flows
- Internal erosion caused by embankment or foundation leakage, or piping or rodent activity
- Improper design
- Improper maintenance
- Negligent operation
- Failure of upstream dams on the same waterway

Water released by a failed dam generates tremendous energy and can cause a flood that is catastrophic to life and property. A catastrophic dam failure could challenge local response capabilities and require evacuations to save lives. Impacts to life safety will depend on the warning time and the resources available to notify and evacuate the public. Major loss of life could result as well as potentially catastrophic effects to roads, bridges, and homes. Electric generating facilities and transmission lines could also be damaged and affect life support systems in communities outside the immediate hazard area. Associated water supply, water quality and health concerns could also be an issue. Factors that influence the potential severity of a full or partial dam failure

are the amount of water impounded; the density, type, and value of development and infrastructure located downstream; and the speed of failure.

In general, there are three types of dams: concrete arch or hydraulic fill, earth and rockfill, and concrete gravity. Each type of dam has different failure characteristics. A concrete arch or hydraulic fill dam can fail almost instantaneously; the flood wave builds up rapidly to a peak then gradually declines. An earth-rockfill dam fails gradually due to erosion of the breach; a flood wave will build gradually to a peak and then decline until the reservoir is empty. And, a concrete gravity dam can fail instantaneously or gradually with a corresponding buildup and decline of the flood wave.

The California Department of Water Resources (DWR) Division of Safety of Dams (DSOD) has jurisdiction over impoundments that meet certain capacity and height criteria. Embankments that are less than six feet high and impoundments that can store less than 15 acre-feet are non-jurisdictional. Additionally, dams that are less than 25 feet high can impound up to 50 acre-feet without being jurisdictional. The Cal DWR DSOD assigns hazard ratings to large dams within the State. The following two factors are considered when assigning hazard ratings: existing land use and land use controls (zoning) downstream of the dam. Dams are classified in three categories that identify the potential hazard to life and property:

- High hazard indicates that a failure would most probably result in the loss of life

- Significant hazard indicates that a failure could result in appreciable property damage

- Low hazard indicates that failure would result in only minimal property damage and loss of life is unlikely

Since 1929, the state has supervised all non-federal dams in California to prevent failure for the purpose of safeguarding life and protecting property. Supervision is carried out through the state's Dam Safety Program under the jurisdiction of DWR. The legislation requiring state supervision was passed in response to the St. Francis Dam failure and concerns about the potential risks to the general populace from a number of water storage dams. The law requires:

- Examination and approval or repair of dams completed prior to August 14, 1929, the effective date of the statute.

- Approval of plans and specifications for and supervision of construction of new dams and the enlargement, alteration, repair, or removal of existing dams.

- Supervision of maintenance and operation of all dams under the state's jurisdiction.

The 1963 failure of the Baldwin Hills Dam in Southern California led the Legislature to amend the California Water Code to include within state jurisdiction both new and existing off-stream storage facilities.

Dams and reservoirs subject to state supervision are defined in California Water Code §6002 through §6004, with exemptions defined in §6004 and §6025. In administering the Dam Safety Program, DWR must comply with the provisions of the California Environmental Quality Act

(CEQA). As such, all formal dam approval and revocation actions must be preceded by appropriate environmental documentation.

In 1972, Congress moved to reduce the hazards from the 28,000 non-federal dams in the country by passing Public Law 92-367, the National Dam Inspection Act. With the passage of this law, Congress authorized the U.S. Army Corps of Engineers (USACE) to inventory dams located in the United States. The action was spurred by two disastrous earthen dam failures during the year, in West Virginia and South Dakota that caused a total of 300 deaths.

The Water Resources Development Act of 1986 (P.L. 99-662) authorized USACE to maintain and periodically publish an updated National Inventory of Dams (NID). The Water Resources Development Act of 1996 (P.L. 104-303), Section 215, re-authorized periodic updates of the NID by USACE.

Flooding

Flooding is the rising and overflowing of a body of water onto normally dry land. History clearly highlights floods as the most frequent natural hazard impacting Yolo County. Floods are among the costliest natural disasters in terms of human hardship and economic loss nationwide. Floods can cause substantial damage to structures, landscapes, and utilities as well as life safety issues. Floodwaters can transport large objects downstream, which can damage or remove stationary structures. Ground saturation can result in instability, collapse, or other damage. Objects can also be buried or destroyed through sediment deposition. Floodwaters can also break utilities lines and interrupt services. Standing water can cause damage to crops, roads, foundations, and electrical circuits. Certain health hazards are also common to flood events. Standing water can also cause septic tank failure and well contamination. Standing water and wet structures can become breeding grounds for microorganisms such as bacteria, mold, and viruses. This can cause disease, trigger allergic reactions, and damage materials long after the flood. When floodwaters contain sewage or decaying animal carcasses, infections become a concern. Direct impacts, such as drowning, can be limited with adequate warning and public education about what to do during floods. Where flooding occurs in populated areas, warning and evacuation will be of critical importance to reduce life and safety impacts from any type of flooding.

Certain health hazards are also common to flood events. While such problems are often not reported, three general types of health hazards accompany floods. The first comes from the water itself. Floodwaters carry anything that was on the ground that the upstream runoff picked up, including dirt, oil, animal waste, and lawn, farm and industrial chemicals. Pastures and areas where cattle and other livestock are kept, or their wastes are stored can contribute polluted waters to the receiving streams. Floodwaters also saturate the ground, which leads to infiltration into sanitary sewer lines. When wastewater treatment plants are flooded, there is nowhere for the sewage to flow. Infiltration and lack of treatment can lead to overloaded sewer lines that can back up into low-lying areas and homes. Even when it is diluted by flood waters, raw sewage can be a breeding ground for bacteria such as e. coli and other disease-causing agents.

The area adjacent to a channel is the floodplain. Floodplains are illustrated on inundation maps, which show areas of potential flooding and water depths. In its common usage, the floodplain most often refers to that area that is inundated by the 100-year flood, the flood that has a one percent chance in any given year of being equaled or exceeded. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance

Program. The 200-year flood is one that has 0.5% chance of being equaled or exceeded each year. The 500-year flood is the flood that has a 0.2 percent chance of being equaled or exceeded in any given year. The potential for flooding can change and increase through various land use changes and changes to land surface, which result in a change to the floodplain. A change in environment can create localized flooding problems inside and outside of natural floodplains by altering or confining natural drainage channels. These changes are most often created by human activity.

Yolo County and its Water Conservation Districts are susceptible to various types of flood events:

Riverine flooding – Riverine flooding, defined as when a watercourse exceeds its “bank-full” capacity, generally occurs as a result of prolonged rainfall, or rainfall that is combined with snowmelt and/or already saturated soils from previous rain events. This type of flood occurs in river systems whose tributaries may drain large geographic areas and include one or more independent river basins. The onset and duration of riverine floods may vary from a few hours to many days and is often characterized by high peak flows combined with a large volume of runoff. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution, the amount of soil moisture, seasonal variation in vegetation, snow depth, and water-resistance of the surface due to urbanization. In Yolo County, riverine flooding can occur anytime from November through April and is largely caused by heavy and continued rains, sometimes combined with snowmelt, increased outflows from upstream dams, and heavy flow from tributary streams. These intense storms can overwhelm the local waterways as well as the integrity of flood control structures. Flooding is more severe when antecedent rainfall has resulted in saturated ground conditions. The warning time associated with slow rise riverine floods assists in life and property protection

Flash flooding – Flash flooding describes localized floods of great volume and short duration. This type of flood usually results from a heavy rainfall on a relatively small drainage area. Precipitation of this sort usually occurs in the winter and spring. Flash floods often require immediate evacuation within the hour and thus early threat identification and warning is critical for saving lives.

Localized/Stormwater flooding – Localized flooding problems are often caused by flash flooding, severe weather, or an unusual amount of rainfall. Flooding from these intense weather events usually occurs in areas experiencing an increase in runoff from impervious surfaces associated with development and urbanization as well as inadequate storm drainage systems.

A weather pattern called the “Atmospheric River” contributes to the flooding potential of the area. An Atmospheric River brings warm air and rain to West. A relatively common weather pattern brings southwest winds to the Pacific Northwest or California, along with warm, moist air. The moisture sometimes produces many days of heavy rain, which can cause extensive flooding. The warm air also can melt the snow pack in the mountains, which further aggravates the flooding potential. In the colder parts of the year, the warm air can be cooled enough to produce heavy, upslope snow as it rises into the higher elevations of the Sierra Nevada or Cascades. Forecasters and others on the West Coast often used to refer to this warm, moist air as the “Pineapple Express” because it comes from around Hawaii where pineapples are grown.

YCFCWCD’s 160 miles of canals can become damaged in flooding events from farm fields draining into canals, canals overtopping, and sediment and debris deposits accumulating and attenuating through the canal system. In February and March 2017, YCFCWCD’s canal systems sustained significant damage to canal banks, culverts, and conveyance infrastructure. Additionally, in the 2017 storm events, a tree jammed into the Capay Diversion Dam apron and north bank of Cache

Creek just downstream of the Dam eroded significantly threatening YCFCWCD's West Adams Canal (the north diversion off the Dam that delivers a third of the District's surface water supplies to farmers). The financial impact of large storm events continues to challenge YCFCWCD's economic sustainability.

Levee Failure

Levee failure flooding can occur as the result of partial or complete collapse or underseepage of an impoundment, and often results from prolonged rainfall and flooding. The primary danger associated with dam or levee failure is the high velocity flooding of those properties downstream of the breach.

A levee failure can range from a small, uncontrolled release to a catastrophic failure. Vulnerability to levee failures is generally confined to the areas subject to inundation downstream of the facility. Secondary losses would include loss of the multi-use functions of the facility and associated revenues that accompany those functions.

Approximately 150 years ago, the levees of the Sacramento-San Joaquin Delta were raised to prevent flooding on what remains some of the most fertile farmland in the nation. While the peat soils were excellent for agriculture, they were not the best choice to create strong foundations for levee barriers meant to contain a constant flow of river water. Nevertheless, it was these native soils that were primarily used to create the levee system.

Levee failure flooding would vary in the County depending on which structure fails and the nature and extent of the failure and associated flooding. This flooding presents a threat to life and property, including buildings, their contents, and their use. Large flood events can affect lifeline utilities (e.g., water, sewerage, and power), transportation, jobs, tourism, the environment, agricultural industry, and the local and regional economies.

Lands within the Levee Flood Protection Zones may be subject to flooding due to various factors, including the failure or overtopping of project or non-project levees, flows that exceed the design capacity of project or non-project levees, and flows from water sources not specifically protected against by project levees. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with U.S. Army Corps of Engineers guidelines. Lands not mapped within a Levee Flood Protection Zone are not invulnerable to flood risk, and some may also experience flooding from these or other related events.

As discovered in the March and April 2017 storm events, YCFCWCD's West Adams Canal is vulnerable to high flow events in Cache Creek. Bank erosion can threaten the West Adams Canal road and the Canal directly. Road access to the headworks of the West Adams Canal is important because the Canal is responsible for conveying a third of YCFCWCD's surface water flows to agricultural users. Creek erosion can encroach on the Canal road and cause a safety issue for YCFCWCD staff. Additionally, levees along Cache Creek that provide protection to agricultural users and residential property is of importance to YCFCWCD and the community at large.

Wildfire

A wildfire is a fire that occurs in an area of combustible vegetation. The three conditions necessary for a wildfire to burn are fuel, heat, and oxygen. Fuel is any flammable material that can burn, including vegetation, structures, and cars. The more fuel that exists and the drier that fuel is, the more intense the fire can be. Wildfires can be started naturally through lighting or combustion or can be set by humans. There are many sources of human-caused wildfires including arson, power

lines, a burning campfire, an idling vehicle, trains, and escaped controlled burns. On average, four out of five wildfires are started by humans. Uncontrolled wildfires fueled by wind and weather can burn acres of land and everything in their path in mere minutes and can reach speeds up to 15 miles per hour. On average, more than 100,000 wildfires burn 4 to 5 million acres of land in the United States every year. Although wildfires can occur in any state, they are most common in the Western states including California where heat, drought, and thunderstorms create perfect wildfire conditions.

Wildfires are of primary concern when they occur in the Wildland Urban Interface (WUI), which is defined as areas where homes are built near or among lands prone to wildfire. Most structures in the WUI are not destroyed from direct flame impingement, but from embers carried by wind. With continued growth in the WUI throughout California, wildfire risk will only increase.

The Indian Valley Dam and Cache Creek Dam infrastructure is highly susceptible to wildfire; YCFCWCD has had to replace its power poles numerous times due to damage from wildfire in Lake County. YCFCWCD has a hydroelectric facility at Indian Valley Dam, which relies on the power lines for controlling the outlet works and hydropower turbines and for transmission of power to PG&E's grid. Consistent power is important for daily operational changes at Indian Valley and Cache Creek Dams and for ensuring remote emergency operations can be performed.

Drought

A drought is a deficiency in precipitation over an extended period, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people. It is a normal recurrent feature of climate that occurs in virtually all climate zones, from very wet to very dry. Drought is a temporary aberration from normal climatic conditions and can thus vary significantly from one region to another. Droughts occur slowly, over a multi-year period, and it is often not obvious or easy to quantify when a drought begins and ends. Drought is a complex issue involving many factors—it occurs when a normal amount of moisture is not available to satisfy an area's usual water-consuming activities.

There are several types of drought which can often be defined regionally based on its effects:

- Meteorological drought is usually defined by a period of below average water supply, based on the degree of dryness (in comparison to normal or average) and the duration of the dry period. Drought onset generally occurs with a meteorological drought.
- Agricultural drought occurs when there is an inadequate water supply to meet the needs of the state's crops and other agricultural operations such as livestock. Agricultural drought links various characteristics of meteorological (or hydrological) drought to agricultural impacts, focusing on precipitation shortages, soil water deficits, reduced ground water or reservoir levels needed for irrigation.
- Hydrological drought is defined as deficiencies in surface and subsurface water supplies. It is generally measured as stream flow, snowpack, and as lake, reservoir, and groundwater levels. Hydrological drought usually occurs following periods of extended precipitation shortfalls.
- Socioeconomic drought occurs when a drought impacts health, well-being, and quality of life, or when a drought starts to have an adverse economic impact on a region.

In drought years, YCFCWCD cannot provide surface water supplies to the agricultural community of Yolo County; during drought years farmers must rely completely on groundwater supplies. The multi-year droughts can cause significant decline of groundwater levels and can ultimately result in

subsidence or sinking of the nearby land. YCFCWCD monitors 14 real-time groundwater wells to track groundwater levels and to better understand local patterns and correlations between drought and wet years in Yolo County. Droughts place a significant financial strain on YCFCWCD's economic sustainability and can affect YCFCWCD's ability to implement necessary maintenance and improvement projects for continued operations and surface water deliveries.

In Yolo County, the Yolo Subbasin Groundwater Agency (YSGA) is the Groundwater Sustainability Agency under the Sustainable Groundwater Management Act (SGMA). The YSGA is comprised of 24 members and was created to plan for and guarantee sustainable groundwater resources in the future. YCFCWCD is assisting the YSGA in developing a Yolo Subbasin Groundwater Sustainability Plan (GSP) to comply with the State's January 31, 2022 deadline. The Yolo Subbasin GSP will outline sustainability management criteria necessary for conjunctive management of water resources in Yolo County, and will list projects and management actions for YSGA and stakeholder's implementation to ensure drought resiliency.

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- Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act
- Public Law 106-390 enacted by Section 104 of the Disaster Mitigation Act of 2000 (DMA)
- Interim Final Rule for DMA 2002 as published in the February 26, 2002, at 44 CFR Part 201

State Laws & Plans

California Government Code, Section 3100, Title 1, Division 4, Chapter 4.

States those public employees are disaster service workers, subject to such disaster service activities as may be assigned to them by their superiors or by law. The term "public employees" includes all persons employed by the state or any county, city, city and county, state agency or public district, excluding aliens legally employed.

The law applies when:

- A local emergency has been proclaimed.

- A state of emergency has been proclaimed.
- A federal disaster declaration has been made.

This Section: Provides the basic authorities for conducting emergency operations following a proclamation of *Local Emergency*, *State of Emergency*, or *State of War Emergency*, by the Governor and/or appropriate local authorities, consistent with the provisions of this Act.

The California Emergency Plan - Revised

Promulgated by the Governor, and published in accordance with the Emergency Services Act, the Plan provides overall statewide authorities and responsibilities, and describes the functions and operations of government at all levels during extraordinary emergencies, including wartime. Section 8568 of the Act states, in part, that "...the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." Local emergency plans are, therefore, considered to be extensions of the California Emergency Plan.

California Civil Code, Chapter 9, Section 1799.102

This section of the California Civil Code provides for "Good Samaritan Liability" for those providing emergency care at the scene of an emergency. Specifically: "No person, who, in good faith and not for compensation, renders emergency care at the scene of an emergency, shall be liable for any civil damages resulting from any act or omission. The scene of an emergency shall not include emergency departments and other places where medical care is usually offered."

Operational Area Governmental Authorities - Local Codes and Ordinances

Local and tribal government codes, ordinances, and executive policies are identified within individual community information profiles. Reclamation Districts are covered under Division 15 of the California Water Code.

The County CAO and jurisdictional City Managers noted in this document serve as the Directors of Emergency Services for their respective areas by law, ordinance and Municipal Code. The Board of Supervisors, City Councils, Tribal Council or Special District Board of Directors serve as the administering agency and the promulgation authority for all plans, policies and procedures within Yolo County and its member jurisdictions. The county and participating jurisdictions recognizes the enhanced Hazard Mitigation Plan of the State of California, the California Emergency Services Act, and the appropriate Federal Regulations including 44 CFR 201. Yolo County is subject to the State of California Uniformed Building Code (UBC), which dictates standards on all current and future construction within Yolo County.

In support of expanding on and improving their existing policies and programs, Yolo County and each of its participating jurisdictions will continue to review and assess local hazard mitigation needs and capacities in conjunction with this plan and other supporting documents and information. YCFCWCD will work with the Yolo County HMP Steering Committee to identify new hazard mitigation strategies to be pursued on an operational area and local basis, and to review the progress and implementation of those policies and programs already identified. Yolo County and each of its participating jurisdictions will continue to process supplemental and supporting hazard mitigation reference information and guidance as released by the state and/or FEMA in support of its hazard mitigation goals and objectives.

C.6.a., C6.b., & C6.c. REVIEW and INCORPORATION of EXISTING PLANS

Yolo County planning efforts are supportive of each other. Information from the Yolo County HMP is incorporated into and used to support the Yolo County General Plan, Yolo County Climate Action Plan, Yolo County Emergency Operations Plan, and the continuity plans for each County and jurisdictional department. Many of these planning efforts incorporate all Yolo County jurisdictions and special districts (i.e. flood response plans for each city and Reclamation District with their input). Yolo County provides emergency planning services to all four cities in Yolo County, the Yocha Dehe Wintun Nation, and the Housing Authority of Yolo County; information from the HMP (including the risk assessment) is incorporated into each of their Emergency Operations Plans and accompanying annexes as well as their continuity plans. Information from several of these plans were used to support the Yolo County HMP as well.

State Hazard Mitigation Plan (SHMP) - 2018

The State Hazard Mitigation Plan (SHMP) identifies policy, establishes goals, and stipulates actions associated with the implementation of enhanced hazard mitigation strategies for California. The SHMP is foundational for local government hazard mitigation planning efforts, and provides inter-organizational guidance and direction based upon established state agency actions and principles.

Yolo County Operational Area Governmental Plans

The Yolo County HMP will be used to focus project prioritization. Mitigation projects will be considered for funding through federal and state grant programs, and when other funds are made available through the County and or federal government. The Yolo County OES will be the coordinating agency for project implementation. Individual jurisdictions have the capacity to organize resources, prepare grant applications, and oversee project implementation, monitoring, and evaluation. Coordinating organizations may include local, county, or regional agencies that are capable of, or responsible for, implementing activities and programs. Yolo County OES will be responsible for mitigation project administration with Yolo County and will assist each submitting jurisdiction named in this plan with their mitigation project administration.

2030 General Plan

The 2030 General Plan provides comprehensive and long-term policies for the physical development of the county and is often referred to as “the constitution” for local government. This is only the third time in the county’s history that the General Plan has been comprehensively updated, and the first time since 1983. While the fundamental goals of promoting agriculture, enhancing open space, and creating sustainable communities are the same as they have been over the past 50 years, the circumstances facing the county have changed. Issues such as the global economy, climate change, and the role of local government create new challenges to maintaining the county’s historic vision. The 2030 General Plan charts a course for the county over the next twenty years that will achieve its goals and address these concerns. The General Plan separates action items that will implement the variety of programs needed to realize the county’s vision, this plan works in coordination with the 2012 revision of the Operational Area Multi-Jurisdictional Hazard Mitigation Plan.

Climate Change Action Plan

The Climate Action Plan represents a significant milestone for Yolo County, which has a long history of being in the forefront of the green movement with land use policies that emphasize growth management, open space preservation and agricultural protection. In 1982, Yolo County adopted an Energy Plan, which was one of the first of its kind. In 1985, the county landfill completed a gas-to-

energy facility, which generates 20,000 kilowatt hours per year and captures 90% of methane emissions.

In 2007, Yolo County became one of 12 charter members from throughout the country to sponsor the Cool Counties Initiative, which pledges each county collectively to reduce greenhouse gas emissions by 80% by 2050. That same year, the county organized local cities, special districts and UC Davis to form the Yolo County Climate Change Compact, providing an ongoing forum for exchanging information on how best to analyze and address greenhouse gas emissions.

In 2009, Yolo County adopted its 2030 General Plan, which contains more than 350 policies that deal with climate change, including the requirement to develop a Climate Action Plan. In addition to implementing General Plan policy, the Climate Action Plan also fulfills the requirements of state legislation, including Assembly Bill 32, Senate Bills 97 and 375, and Executive Order S-3-05.

The Climate Action Plan estimates that in 2008, the unincorporated area (excluding UC Davis, the Yocha Dehe Wintun Nation and special districts) produced 651,470 metric tons of carbon dioxide equivalents, or greenhouse gasses. Approximately 48% of those emissions are created by agriculture. Transportation and energy account for an additional 47%, with the remainder made up by such sectors as the landfill, wastewater treatment, construction, mining and stationary sources.

A target is established in the Climate Action Plan to reduce the 2008 emissions back to the levels estimated for 1990, or 613,651 metric tons. To achieve this target, 15 programs are proposed, including such measures as increasing renewable energy production, enhancing energy and water conservation, expanding alternative transportation, planting trees and reducing fertilizer application. In order to meet the reductions envisioned in the Cool Counties Initiative and state legislation, the Climate Action Plan also includes voluntary goals to reduce greenhouse emissions to 447,965 metric tons by 2030, and 122,730 metric tons by 2050.

C.4.a., C.5.b., & D.2 PROJECT LIST

The Yolo County HMP was revised to reflect progress in local mitigation efforts. Mitigation projects were selected for each hazard and for each jurisdiction based off the hazard risk assessment. The projects are supported by the mitigation goals and objectives, and are ranked using the following criteria; approximate cost, timeframe of completion, whether the project requires Board of Supervisors regulatory action, and an assumption as to whether or not the project would be subject to CEQA or NEPA requirements. Funding sources are identified for all projects. All projects consider new, future, and existing development.

A cost benefit review process will be completed for each project that will be submitted during a given fiscal year. The general priorities of the cost benefit risk analysis will focus on projects that are lifesaving, life safety, property protection and lastly environmental protection. A ratio of at least two dollars of benefit for each dollar invested will be considered the minimum cost benefit ratio for any projects submitted within Yolo County and its participating jurisdictions.

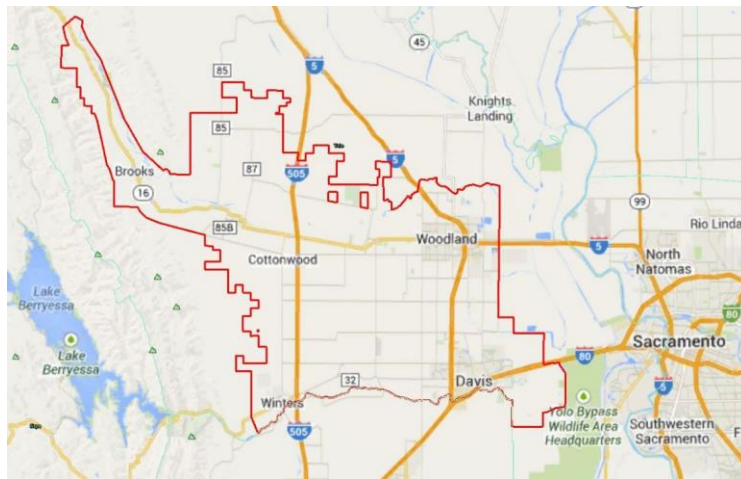
Full descriptions of each mitigation project are found in the table below.

MITIGATION PROJECTS					
Mitigation Project	Jurisdiction/ Responsible Agency	New/ Existing or Completed/ Deleted	Estimated Cost and Potential Funding Source	Timeframe of Completion	Comments/ Progress
DAM FAILURE					
Indian Valley Dam Upgrades	Yolo County / YCFCWCD	NEW (2017)	PDM, HMGP	Ongoing	Ongoing
Capay Valley Diversion Dam (West Adam and Winters Headworks) Upgrades	Yolo County / YCFCWCD	EXISTING (2018)	YCFCWCD Capital Job Funding	October 2018	Ongoing
FLOODING					
Forbes Ranch Regulating Pond*	Yolo County/ YCFCWCD	NEW (2018)	PDM, HMGP	Ongoing	Ongoing
North Winters Retention Pond*	Yolo County/ YCFCWCD/ City of Winters	NEW (2018)	PDM, HMGP	Ongoing	Ongoing
LEEVE FAILURE					
West Adams Canal Road and Cache Creek Bank Erosion Emergency Repair Project	Yolo County/ YCFCWCD	COMPLETED (2017)	\$250,000 CDAA/FEMA Funding and YCFCWCD Capital Job Funding	June 2017	
WILDFIRE					
Indian Valley Dam Power Pole Upgrade	Yolo County / YCFCWCD	NEW (2018)	PDM, HMGP	Ongoing	Ongoing
DROUGHT					
Forbes Ranch Regulating Pond*	Yolo County/ YCFCWCD	NEW (2018)	PDM, HMGP	Ongoing	Ongoing
North Winters Retention Pond*	Yolo County/ YCFCWCD/ City of Winters	NEW (2018)	PDM, HMGP	Ongoing	Ongoing
*Multi-benefit project – assists with slowing storm flow conveyance and capturing water for recharge					

MAP

The YCFCWCD territory encompasses approximately 200,000 acres, nearly 40 percent of the valley lands in Yolo County, including the cities of Woodland, Davis and Winters, and the towns of Capay, Esparto, Madison and other small communities within the Capay Valley. The distribution system is

comprised of over 160 miles of canals and laterals. Three dams, Cache Creek Dam, Indian Valley Dam and the Capay Diversion Dam are managed by the District.



APPENDIX L: ADOPTION LETTERS

DRAFT



TO: THE HONORABLE MAYOR AND CITY COUNCIL

AGENDA: City Council Regular Meeting

DATE: November 20, 2018

ITEM #: K.14.

SUBJECT: Update on Permanent Supportive Housing Project for Submission under the State's No Place Like Home Grant Program, and Approval of Memorandum of Understanding with Partnership HealthPlan of California for Local Innovation Grant on Housing in the Amount of \$679,972.

Recommendation for Action: Staff recommends that the City Council:

1) receive an update on development of a new permanent supportive housing project concept for submission under the State's No Place Like Home Grant Program, and

2) adopt Resolution No. _____, approving a Memorandum of Understanding with Partnership HealthPlan of California (PHC) for a Local Innovation Grant on Housing in the amount of \$679,972; amending the FY19 budget as necessary in order to appropriate the \$679,972 grant award; and authorizing the City Manager to execute any and all documents needed for the City to implement the project.

Staff Contact:

Dan Sokolow, Senior Planner (530) 661-5927, dan.sokolow@cityofwoodland.org

Fiscal Impact:

There is no fiscal impact.

Background:

Partnership HealthPlan which serves as the managed healthcare provider for Medi-Cal members in fourteen counties including Yolo County awarded the City a \$679,972 grant through its Local Innovation Grant on Housing Request for Proposals. The one-time funding is intended to support a project that will expand access to housing (permanent housing and/or structured transitional housing) for Medi-Cal members enrolled with PHC.

The PHP grant will fund pre-development costs and due diligence for a project to develop one and two-bedroom micro-dwellings that will house at least 60 individuals and families who are currently unhoused, unstably housed or otherwise challenged in meeting market rate rental costs. The proposed permanent supportive housing project, contemplated to be located on a City-owned site at County Road 102 and East Beamer, represents the first of several steps that will transform the system of homeless shelter and services in Woodland:

New campus constructed on five acres at the City parcel at 102 and E. Beamer:

1. *The Micro-Neighborhood*: 60 units of housing for the most qualified homeless in Yolo County at a cost of about \$7,800,000 or \$130,000 per dwelling;
2. *Fourth & Hope Shelter*: Relocation of the only year-round shelter in Yolo County with services relocated from downtown Woodland to the new campus. The new facility will expand capacity from 67 men, women, and children to 100 men and women. The current facility houses 25 men and 25 women in two rooms, with families sleeping in a multi-purpose room that doubles as a cafeteria during the day.
3. *Walter's House*: A new drug and alcohol treatment center with services relocated from downtown

Woodland to the new campus to expand its capacity from 40 beds to 60 beds to meet increased demand; and

Repurposed, former facilities on Court Street:

- Former Fourth & Hope Shelter: Sober Living House will serve as a resource for individuals, especially those who are unhoused, after completing the Walter's House program.
- Former Walter's House: Bridge Family Housing, eligible to receive funding from the State-funded CalWORKS Housing Support Program, will house 11 to 15 families with sleeping quarters and a bathroom designated for each family, a major improvement over sharing one large room with other families in a general shelter serving many individuals.

A public/private partnership, the five step initiative is led by three non-profit partners, with the City providing a site and Yolo County, a services partner:

Friends of the Mission – longest serving nonprofit provider in Yolo dedicated to homeless housing

Fourth and Hope – largest nonprofit housing and service provider for homeless in Yolo County

Woodland Opportunity Village – newest Woodland nonprofit dedicated to innovative housing solutions to homelessness

Challenges and Workarounds:

- The PHP grant provides the initial leverage to begin work on the micro-neighborhood portion of the project, using the contribution of the land by the City as a fulcrum to reduce capital costs.
- Building community support for the project is expected to be greatly facilitated by siting the housing and services outside of the city center, in a non-residential area.
- The proposed mobility plan can include Micro-Transit, YCTD service, private/non-profit shuttles and bike lanes already striped so residents can access services, community amenities and shopping.
- The City will obtain the necessary planning approvals that allow leaseholder occupancy by the proposed uses by Friends of the Mission, the project applicant, project developer, and property manager so the City would not manage the project nor the residents.
- Though the City-owned site is in the County, preliminary discussions with County Counsel suggest that the project would not be subject to the County's general plan and zoning laws.
- The Micro-Neighborhood plan is well positioned to be competitive in the first round of State's No Place Like Home (NPLH) funding, application deadline end of January 2019.
- Private funding partners have been engaged with a goal to raise roughly \$6.0 million toward the estimated \$10 million total project costs, contingent on a successful NPLH grant application., and other state funding sources.

Discussion:

After working with PHC staff for a number of months, the City in April of this year submitted a concept proposal to PHC to support the development of micro-houses for individuals who are Medi-Cal eligible and

homeless.. Consistent with the City's Homeless Action Plan, the units would qualify as permanent supportive housing and address the urgent need for affordable housing. The attached MOU spells out the specific use of the Partnership HealthPlan Grant.

Conclusion:

Staff recommends that the City Council

1) receive an update on development of a new permanent supportive housing project concept for submission under the State's No Place Like Home Grant Program, and

2) adopt Resolution No. _____, approving a Memorandum of Understanding with Partnership HealthPlan of California (PHC) for a Local Innovation Grant on Housing in the amount of \$679,972; amending the FY19 budget as necessary in order to appropriate the \$679,972 grant award; and authorizing the City Manager to execute any and all documents needed for the City to implement the project.

Prepared by: Dan Sokolow, Senior Planner

Reviewed by: Christine Engel, CSD Director



Paul Navazio
City Manager

Attachments:

1. MOU CC Reso
2. MOU with PHC

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WOODLAND
APPROVING A MEMORANDUM OF UNDERSTANDING WITH PARTNERSHIP
HEALTHPLAN OF CALIFORNIA FOR
A LOCAL INNOVATION GRANT ON HOUSING AND
AUTHORING APPROPRIATION OF GRANT FUNDS IN FY2018/19 BUDGET**

WHEREAS, Partnership HealthPlan of California (PHC) awarded the City of Woodland a Local Innovation Grant on Housing in the amount of \$679,972;

WHEREAS, after working with PHC staff for a number of months, the City in April 2018 submitted a concept proposal to PHC to support the development of micro-houses for individuals who are Medi-Cal eligible and homeless.

NOW, THEREFORE, BE IT RESOLVED THAT the City Council approves a Memorandum of Understanding with Partnership HealthPlan of California for a Local Innovation Grant on Housing in the amount of \$679,972; amends the FY19 budget as necessary to appropriate the \$679,972 grant award for Fund 351; and authorizes the City Manager to execute any and all documents needed for the City to implement the project.

PASSED AND ADOPTED by the City Council this 20th day of November, 2018, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Enrique Fernandez, Mayor

ATTEST:

APPROVED AS TO FORM:

Ana B. Gonzalez, City Clerk

Kara K. Ueda, City Attorney



**LOCAL INNOVATION GRANT ON HOUSING
MEMORANDUM OF UNDERSTANDING
BETWEEN
CITY OF WOODLAND
AND
PARTNERSHIP HEALTHPLAN OF CALIFORNIA**

This Memorandum of Understanding (the “MOU”) is made and entered into by Partnership HealthPlan of California (“PHC”, “The Plan”), a public entity, and **City of Woodland** (“Housing Provider”, “Grantee”), also hereunder known as (“Party”, “Parties”). This MOU is effective **September 1, 2018** and will expire on **September 1, 2020**.

RECITALS/BACKGROUND

Partnership HealthPlan of California is a non-profit community-based healthcare organization that contracts with the State of California to provide Medi-Cal services in several counties in Northern California, under a County Organized Health System model.

WHEREAS, PHC has developed the Local Innovation Grant on Housing. Through this grant program, PHC seeks to address the critical housing and housing-related needs that affect the health and overall costs of healthcare for its 572,000 members. The Plan has allocated a total of \$25 million to this program for the purpose of making a one-time grant available, to projects, in each of PHC’s 14 counties, that were selected based upon a competitive request-for-proposals submission.

FURTHERMORE, this MOU identifies each party’s responsibilities and obligations for the allocation of a one-time grant to support a project that will expand access to housing for Medi-Cal members enrolled with Partnership HealthPlan of California in Yolo County. The project is the result of a collaborative process involving community support and leveraging of community resources.

NOW, THEREFORE, in consideration of the promises and the mutual covenants herein stated, it is agreed by and between the Parties hereto as follows:

HOUSING PROVIDER’S OBLIGATIONS

City of Woodland agrees that the services provided pursuant to this grant are provided for the benefit of PHC members and communities. City of Woodland agrees to work with PHC staff in order to facilitate the evaluation of the effectiveness of this program and to provide information on the progress of the project.

City of Woodland agrees to designate a primary staff member as the point of contact for the purposes of the administration of this grant.

City of Woodland agrees to provide the services and documentation outlined in Attachment A, Scope of Work, on or before September 1, 2020.

City of Woodland acknowledges that PHC will execute a deed restriction intended to ensure that the property will be used for the purposes outlined in the MOU, to be used for the purposes described for at least fifteen (15) years after completion.

HEALTHPLAN’S OBLIGATION

PHC agrees to provide fiscal support by means of a grant to City of Woodland (“Grantee”) for the purpose and project specified in Attachment C.

PHC will provide grant payments according to the schedule and amounts listed in Attachment B, Payment Schedule. In no event shall payments exceed the total grant award of \$679,972.00 for the term of this MOU. If the terms and conditions set for in Attachment A & B are not met, including timely quarterly reporting, PHC reserves the right to withhold any further payments, and move to terminate this MOU, and to recoup funds to the extent practical.

TERM AND TERMINATION

The effective date of this MOU is September 1, 2018 and will remain in force up to September 1, 2020.

This MOU, and its attachments, constitutes the entire agreement between the Parties and except as otherwise specified in this MOU may be amended only by both Parties' agreement in writing, and executed by a duly authorized person of each Party.

Either party may terminate this MOU upon thirty (30) days' prior written notice to the other party. In the event of the failure of either party to meet the specified obligations, the agreement may be terminated within thirty (30) days' notice of the failure, if the obligation is still not met at that time. At the time of termination, PHC may seek to recoup funds to the extent practical.

Good Standing. PHC provides a variety of support initiatives, including this one-time housing access expansion grant to local providers in good standing. Local providers in good standing are those not pursuing any litigation or arbitration against PHC at the time of program application or at the time additional funds may be payable, and has demonstrated the intent, in PHC'S sole determination, to continue to work with PHC on addressing community and member issues. Additionally, at the direction of the Chief Executive Officer or designee, PHC may determine that a provider is not in good standing based on relevant quality, payment or other business concerns. PHC, has the sole authority to determine if a Provider is in good standing. Upon termination of the MOU, the Grantee will reimburse PHC for any funds not expended by it on the project by the termination date. At the date of termination, PHC will cease to be liable to the Grantee for any grant funds committed pursuant to this MOU.

OTHER PROVISIONS

Non-Discrimination. Grantee and its subcontractors shall not unlawfully discriminate or harass against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40) marital status, and use of family care leave and any other characteristics covered under State and federal law. Grantee and subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination and harassment.

Compliance with Law. Grantee agrees to comply with all federal, State and local licensing standards, all applicable accrediting standards, and any other standards or criteria established federally, by the State, or locally, to assure quality of service. Grantee agrees to comply with all applicable State and Federal laws and regulations during the term of this MOU.

Audit. PHC reserves the right to audit data submissions prior to payment. Upon request, Grantee agrees to provide copies of the supporting documentation based on the obligations of this MOU.

Liability: City of Woodland indemnifies and holds harmless PHC and its commissioners, officers, employees and agents from and against all allegations, claims and liabilities that result from any act or omission by City of Woodland related to the services funded under this MOU.

Counterparts. This MOU may be executed by electronic signatures, each of which shall be deemed an

original, but all of which, together, shall authorize one agreement.

IN WITNESS WHEREOF, the Parties have, by their duly authorized representatives, executed this Agreement, to be effective the date written above:

CITY OF WOODLAND

_____	_____
Printed Name and Title	Date

_____	_____
Signature	Date

PARTNERSHIP HEALTHPLAN OF CALIFORNIA

_____	_____
Printed Name and Title	Date

_____	_____
Signature	Date

ATTACHMENT A

SCOPE OF WORK

City of Woodland agrees to provide the following services and documentation of services:

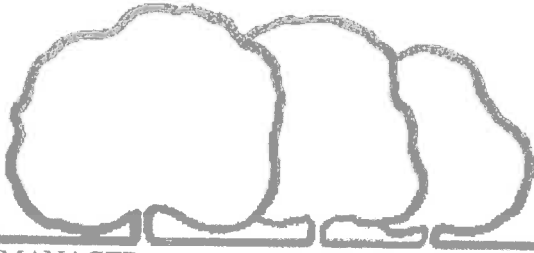
1. Written progress reports, documenting efforts to provide the services outlined in Attachment C, no less than four times in a calendar year, on a quarterly basis. Quarterly reports shall be submitted no less than 30 days after the end of a quarter. City of Woodland agrees to provide additional reporting, as requested by PHC staff. All reports shall include, as applicable:
 - a. Details of the expenditure of grant funds
 - b. Summaries of ongoing collaborative efforts with the region's health care providers and/or homeless programs;
 - c. Verification of the use of the applicable HMIS system;
 - d. Changes, if any, to the proposed budget or sustainability plan;
 - e. "Lessons learned" or observations on the effectiveness of various outreach, case management or other strategies.
2. A list of PHC members, including names, CIN numbers and birth dates, for PHC members housed or otherwise served. City of Woodland acknowledges its obligation to ensure that these data are collected in accordance with HIPAA and other relevant rules or regulations.
3. Documentation of any changes in services for PHC members previously housed or served (i.e., if members leave the housing facility);
4. Outcome measures, as defined in Attachment C (*Grant Proposal*).
5. Other measures that may be mutually identified by PHC and City of Woodland during the term of this MOU.

ATTACHMENT B
PAYMENT SCHEDULE

Disbursement and Amount	Scheduled Date	Deliverables
\$154,000 for the funding of project predevelopment expenses	Within 45 days of executed MOU	• Executed MOU • Evidence of site acquisition • Progress report describing status of project timeline.
\$325,972 for the funding of site infrastructure development	Within 60 days of deliverable demonstration	• Evidence that the project aligns with allowable development activity as defined by applicable state, county and/or city jurisdictional criteria and written progress report on infrastructure development.
\$200,000 for the funding of ongoing development	Within 60 days of deliverable demonstration	• Written progress report as detailed in Attachment A, the budget and sustainability plans, with revisions if needed.

ATTACHMENT C

Grant Proposal



City of Woodland

CITY MANAGER

300 FIRST STREET

WOODLAND, CA 95695

(530) 661-5800

FAX: (530) 661-5813

April 30, 2018

Margaret Kisliuk
Behavioral Health Administrator
4665 Business Center Drive
Fairfield, CA 9453

Dear Ms. Kisliuk:

On behalf of the City of Woodland and its partners, I am submitting a proposal for \$680,000 to the Partnership HealthPlan Innovation Grant funds to address the unmet needs of Woodland residents who are unhoused and vulnerable. I appreciate the opportunity to update our original proposal. An independent review of homelessness this past winter found that adding permanent supportive housing was the best and most effective strategy to reduce homelessness in our city.

This proposal, Woodland Micro Neighborhood, will result in 60 micro-houses for individuals who are Medi-Cal eligible. It is the first phase of a three-phased project that will also include an adult residential treatment facility and 40 additional affordable micro-houses on-site. The relocation of the adult residential facility frees up the current building to house 11 families who are homeless. Woodland's system of services for individuals and families in need will expand by 71 units and leverage additional revenue from Drug Medi-Cal for the residential facility and CalWORKS Housing for the families served.

The Woodland Micro Neighborhood integrates best practices in both program and housing. Utilizing Housing First principles, residency is based on appropriate behavior rather than a "rental ready" approach. Supportive services designed to wrap around each individual helps keep residents safe and housed. This project utilizes manufactured micro-housing to build quickly, cost effectively, and permanently. Each fully equipped micro-house will meet all federal and state housing standards.

As requested, the attached proposal provides a project scope, operating and capital budgets, a timeline and milestones for development, and examples of micro-housing. We intend to leverage the Innovation Grant funds to attract additional capital dollars from other foundations and private charities.

Thank you for your consideration of this proposal. We welcome your questions. Please contact either me or Joan Planell (joanmplanell@gmail.com; 240.623.6201) if you need additional information.

Sincerely,



Paul Navazio
City Manager



EXHIBIT D

BUSINESS ASSOCIATE AGREEMENT

This Business Associate Agreement (“BAA”), effective as of September 1, 2018 (“Effective Date”) is entered into by and between PARTNERSHIP HEALTHPLAN OF CALIFORNIA (the “Plan” or “Covered Entity”) and CITY OF WOODLAND (“Business Associate”). PARTNERSHIP HEALTHPLAN OF CALIFORNIA and CITY OF WOODLAND may be referred to individually as a “Party” or collectively as “Parties.”

WHEREAS, the Parties have entered into a Memorandum of Understanding effective September 1, 2018 (“Agreement”) which may require Business Associate’s use or disclosure of protected health information (“PHI”) in performance of the services described in the Agreement on behalf of the Plan.

WHEREAS, the Parties are committed to complying with the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”) and the Health Information Technology for Economic and Clinical Health (“HITECH”) Act and any regulations promulgated thereunder (collectively the “HIPAA Rules”).

WHEREAS, this BAA, in conjunction with the HIPAA Rules, sets forth the terms and conditions pursuant to which PHI (in any format) that is created, received, maintained, or transmitted by, the Business Associate from or on behalf of the Plan, will be handled between the Business Associate, the Plan and with third parties during the term of the Agreement(s) and after its termination.

NOW THEREFORE, the Parties hereby agree as follows:

1. DEFINITIONS

- 1.1 The following terms used in this BAA shall have the same meaning as those terms in the HIPAA Rules: Availability, Breach, Confidentiality, Data Aggregation, Designated Record Set, Disclosure, Health Care Operations, Individual, Integrity, Minimum Necessary, Notice of Privacy Practices, Protected Health Information, Required By Law, Secretary, Security Incident, Subcontractor, Unsecured Protected Health Information, and Use.

2. SPECIFIC DEFINITIONS

- 2.1 Business Associate. “Business Associate” shall generally have the same meaning as the term “business associate” at 45 CFR 160.103, and in reference to the party to this BAA, shall mean CITY OF WOODLAND.
- 2.2 Covered Entity. “Covered Entity” shall generally have the same meaning as the term “covered entity” at 45 CFR 160.103, and in reference to the party to this BAA, shall mean PARTNERSHIP HEALTHPLAN OF CALIFORNIA.
- 2.3 HIPAA Rules. “HIPAA Rules” shall mean the Privacy, Security, Breach Notification, and Enforcement Rules at 45 CFR Part 160 and Part 164.
- 2.4 Services. “Services” shall mean, to the extent and only to the extent they involve the creation, use or disclosure of PHI, the services provided by Business Associate to the Plan under the Agreement, including those set forth in this BAA, as amended by written consent of the parties from time to time.

3. RESPONSIBILITIES OF BUSINESS ASSOCIATE

Business Associate agrees to:

- 3.1 Not use or disclose PHI other than as permitted or required by the BAA or as required by law;
- 3.2 Use appropriate safeguards, and comply with Subpart C of 45 CFR Part 164 with respect to electronic PHI, to prevent use or disclosure of PHI other than as provided for by the BAA;
- 3.3 Implement administrative, physical, and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of PHI that it creates, receives, maintains, or transmits on behalf of the Plan. Business Associate shall comply with the applicable standards at Subpart C of 45 CFR Part 164;
- 3.4 Promptly report to the Plan any use or disclosure of PHI not provided for by the BAA of which it becomes aware, including, but not limited to, Breaches or suspected Breaches of unsecured PHI under 45 CFR 164.410, and any Security Incident or suspected Security Incidents of which it becomes aware. Business Associate shall report the improper or unauthorized use or disclosure of PHI within 24 hours to the Plan. Business Associate shall take all reasonable steps to mitigate any harmful effects of such Breach or Security Incident. Business Associate shall indemnify the Plan against any losses, damages, expenses or other liabilities including reasonable attorney's fees incurred as a result of Business Associate's or its agent's or Subcontractor's unauthorized use or disclosure of PHI including, but not limited to, the costs of notifying individuals affected by a Breach;
- 3.5 In accordance with 45 CFR 164.502(e)(1)(ii) and 164.308(b)(2), if applicable, ensure that any subcontractors that create, receive, maintain, or transmit PHI on behalf of the Business Associate agree to the same restrictions, conditions, and requirements that apply to the Business Associate with respect to such information;
- 3.6 Make available PHI in a designated record set to the Plan as necessary to satisfy the Plan's obligations under 45 CFR 164.524;
- 3.7 Make any amendment(s) to PHI in a designated record set as directed or agreed to by the Plan pursuant to 45 CFR 164.526, or take other measures as necessary to satisfy the Plan's obligations under 45 CFR 164.526;
- 3.8 Forward any requests from a Plan member for access to records maintained in accordance with the BAA as soon as they are received. The Plan will maintain responsibility for making determinations regarding access to records;
- 3.9 Direct any requests for an amendment from an individual as soon as they are received to the Plan. The Business Associate will incorporate any amendments from the Plan immediately upon direction from the covered entity;

- 3.10 Maintain and make available the information required to provide an accounting of disclosures to the Plan as necessary to satisfy the Plan's obligations under 45 CFR 164.528;
- 3.11 Forward any requests from a Plan member for an accounting of disclosures maintained in accordance with the BAA as soon as they are received. The Plan will maintain responsibility for making determinations regarding the provision of an accounting of disclosures;
- 3.12 To the extent the Business Associate is to carry out one or more of the Plan's obligations under Subpart E of 45 CFR Part 164, comply with the requirements of Subpart E that apply to the covered entity in the performance of such obligation(s); and
- 3.13 Make its internal practices, books, and records available to the Secretary for purposes of determining compliance with the HIPAA Rules.

4. PERMITTED USES AND DISCLOSURES BY BUSINESS ASSOCIATE

- 4.1 Business Associate may only use or disclose PHI as necessary to perform the services set forth in the Agreement.
- 4.2 Business Associate must obtain approval from the Plan before providing any de-identified information in accordance with 45 CFR 164.514(a)-(c). Business Associate, if approved, will obtain instructions for the manner in which the de-identified information will be provided.
- 4.3 Business Associate may use or disclose PHI as required by law.
- 4.4 Business Associate agrees to make uses and disclosures and requests for PHI consistent with the Plan's minimum necessary policies and procedures.
- 4.5 Business Associate may not use or disclose PHI in a manner that would violate Subpart E of 45 CFR Part 164 if done by the Plan except for the specific uses and disclosures set forth below.
- 4.6 Business Associate may use PHI for the proper management and administration of the Business Associate or to carry out the legal responsibilities of the Business Associate, provided the disclosures are required by law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that the information will remain confidential and used or further disclosed only as required by law or for the purposes for which it was disclosed to the person, and the person notifies Business Associate of any instances of which it is aware in which the confidentiality of the information has been breached.

5. PROVISIONS FOR COVERED ENTITY TO INFORM BUSINESS ASSOCIATE OF PRIVACY PRACTICES AND RESTRICTIONS

- 5.1 The Plan shall notify Business Associate of any limitations in the notice of privacy practices under 45 CFR 164.520, to the extent that such limitation may affect Business Associate's use or disclosure of PHI.

- 5.2 The Plan shall notify Business Associate of any changes in, or revocation of, the permission by an individual to use or disclose his or her PHI, to the extent that such changes may affect Business Associate's use or disclosure of PHI.
- 5.3 The Plan shall notify Business Associate of any restriction on the use or disclosure of PHI that the Plan has agreed to or is required to abide by under 45 CFR 164.522, to the extent that such restriction may affect Business Associate's use or disclosure of PHI.

6. PERMISSIBLE REQUESTS BY COVERED ENTITY

- 6.1 The Plan shall not request Business Associate to use or disclose PHI in any manner that would not be permissible under Subpart E of 45 CFR Part 164 if done by covered entity.

7. TERM AND TERMINATION

- 7.1 Term. The Term of this BAA shall be effective as of September 1, 2018 and shall terminate on the expiration date of the Agreement or on the date the Plan terminates for cause as authorized in Paragraph 7.2 below, whichever is sooner.
- 7.2 Termination for Cause. Business Associate authorizes termination of this BAA by the Plan, if the Plan determines, in its sole discretion, that Business Associate has violated a material term of this BAA and either:
 - 7.2.1 The Plan provides Business Associate an opportunity to cure the Breach or end the violation within a time specified and Business Associate does not cure the Breach or end the violation within the time specified by the Plan; or
 - 7.2.2 The Plan immediately terminates this BAA upon notice if the Plan determines, in its sole discretion, that a cure is not possible.
- 7.3 Obligations of Business Associate Upon Termination. Upon termination of this BAA for any reason, Business Associate, with respect to PHI received from the Plan, or created, maintained, or received by Business Associate on behalf of the Plan, shall:
 - 7.3.1 Retain only that PHI which is necessary for Business Associate to continue its proper management and administration or to carry out its legal responsibilities;
 - 7.3.2 Return to covered entity or, if agreed to by covered entity, destroy the remaining PHI that the Business Associate still maintains in any form;
 - 7.3.3 Continue to use appropriate safeguards and comply with Subpart C of 45 CFR Part 164 with respect to electronic PHI to prevent use or disclosure of the PHI, other than as provided for in this Section, for as long as Business Associate retains the PHI;
 - 7.3.4 Not use or disclose the PHI retained by Business Associate other than for the purposes for which such PHI was retained and subject to the same conditions set out at section 4 of this BAA which applied prior to termination; and

7.3.5 Return to covered entity or, if agreed to by covered entity, destroy the PHI retained by Business Associate when it is no longer needed by Business Associate for its proper management and administration or to carry out its legal responsibilities.

7.4 Survival. The obligations of Business Associate under this Section shall survive the termination of this BAA.

8. MISCELLANEOUS

8.1 No Third Party Beneficiaries. Nothing express or implied in this BAA is intended to confer, nor shall anything herein confer, upon any person other than the Parties and the respective successors or assigns of Parties, any rights, remedies, obligations or liabilities whatsoever.

8.2 Regulatory References. A reference in this BAA to a section in the HIPAA Rules means the section as in effect or as amended.

8.3 Amendment. The Parties agree to take such action as is necessary to amend this BAA from time to time as is necessary for compliance with the requirements of the HIPAA Rules and any other applicable law.

8.4 Interpretation. Any ambiguity in this BAA shall be interpreted to permit compliance with the HIPAA Rules.

8.5 Counterparts; Facsimile Signatures. This BAA may be executed in any number of counterparts, each of which will be deemed an original and all of which together will constitute one and the same document. This BAA may be executed and delivered by facsimile or in PDF format via email, and any such signatures will have the same legal effect as manual signatures. If a Party delivers its executed copy of this BAA by facsimile signature or email, such party will promptly execute and deliver to the other party a manually signed original if requested by the other party.

Acknowledged and agreed:

**PARTNERSHIP HEALTHPLAN OF
CALIFORNIA**

CITY OF WOODLAND

By: _____

By: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____



TO: THE HONORABLE MAYOR AND CITY COUNCIL
AGENDA: City Council Regular Meeting
DATE: November 20, 2018
ITEM #: K.15.
SUBJECT: Approve the Sale and Related Documents for the Spring Lake CFD 2004-1, Special Tax Bonds Series 2019

Recommendation for Action:

Staff Recommends that the City Council adopt Resolution No. _____, Confirming Previous Actions for the Issuance of the Special Tax Bonds for Community Facilities District No. 2004-1 (Spring Lake), Approving a Revised Form of the Official Statement Relating to the Bonds, and Approving Certain Other Actions Related Thereto.

Staff Contact:

Kim McKinney, Finance Officer, (530) 661-5849, kimberly.mckinney@cityofwoodland.org

Fiscal Impact:

The proceeds from the 2019 Bonds, currently estimated at \$17.61 million, will be made available to reimburse Spring Lake developers for projects that have either been complete and awaiting funds for reimbursement, or for projects currently being built for which reimbursement agreements exist. The total costs of issuance for these bonds, including the underwriter's discount, is currently estimated at \$486,800.

Issuance of these bonds will not affect the annual debt service paid by developed property (homeowners) within Spring Lake; the bonds are sized to time the payment of debt service to new development expected to occur. To the extent that development does not occur in the timelines assumed for this debt, undeveloped property will be assessed for the difference.

Background:

In 2004, the City sold the initial series of bonds (the "2004 Bonds") for Spring Lake in the amount of \$33,050,000. These bonds were subsequently refunded to achieve significant savings through issuance of bonds in 2013 (the "2013 Bonds") in the amount of \$29,805,000.

In 2012, along with consultants, the City designed a private placement bond program to achieve three main goals: First, to allow landowners / developers ready to sell or develop their property to generate bond proceeds without having to access the municipal market in a number of small public offerings with relatively high issuance costs. Second, the subordinate private placements would not increase the burden on tentative map properties since they are sized and supported by only the maximum special taxes for those particular projects being developed. Third, the program allowed the City to pool these subordinate private placements together until such time as enough size was available to justify the costs of a public offering.

As part of the program, the City issued the following subordinate private placement bonds:

July 18, 2013	Access Land Co.	\$1,506,300
July 23, 2013	Pioneer Investors	\$1,226,900
August 27, 2014	Turn of the Century	\$2,902,500
October 6, 2014	Pioneer Investors	\$2,256,000
January 15, 2015	Heritage Park	\$505,800
November 10, 2015	Cal West / Optimistic Partners	<u>\$2,842,900</u>

Total Amount Issued **\$11,240,400**

In 2016, the City sold bonds (the "2016 Bonds") in the amount of \$26,800,000. The 2016 Bonds were sold to not only refund the outstanding private placement bonds in the amount of \$11.12 million but also included an additional amount of \$15.69 million, which generated approximately \$14.64 million in new money for projects and reimbursement to developers for oversizing of infrastructure within Spring Lake.

Discussion:

On July 17, 2018 the City Council adopted Resolution No. 7131 approving the issuance of a series of special tax bonds for Spring Lake. There have been delays in getting that approved transaction to market awaiting the outcome of certain legal actions and a full accounting of the reimbursements to the various development teams. The City Council is now being asked to (1) reaffirm the previous approval, (2) designate the bonds as Series 2019, and (3) review the revised Official Statement.

Infrastructure projects in Spring Lake are generally installed by the developers and then reimbursed once they are completed and funds are available. Funds become available either through collection of Spring Lake Infrastructure Fee (SLIF) or issuance of bonds. Most developers have credits available to them and therefore do not pay the SLIF in cash, so bond proceeds are the only way currently to pay developers for infrastructure being installed as development continues.

To make the annual debt service payments on the bonds, developed property (properties with building permits issued) are first assessed with the maximum special tax. To the extent that the money collected from developed property is not sufficient to meet annual debt service requirements, undeveloped property is assessed to make up the difference. The City has historically heard from property owners that they do not wish to pay special taxes on their property since they have no near-term desire to move forward on their developments. In order to avoid these tentative mapped properties from being taxed, the proposed bonds are sized against only those building permits and properties expected to be on the tax roll for the remainder of this year (2018) and next (2019).

The new money generated will be used to reimburse previous round developers for oversized infrastructure and any amounts remaining will be used to fund other capital projects within the District. The 2019 Bonds will be sold on a parity basis with the 2013 Bonds and the 2016 Bonds, meaning they have an equal right to the special taxes of the District.

Since properties are not subject to pay the Developed Special Tax Rate until a building permit is pulled, it is anticipated that capitalized interest will be funded on the 2019 Bonds and used to pay a portion of the interest on the bonds from the sale date through and including 9/1/2020. In August 2019, it is anticipated that the properties completed in 2018 will be placed on the tax roll. Depending on how quickly development occurs, capitalized interest will be used to pay a portion of the interest on the Series 2019 Bonds from the closing date to 9/1/2019. In August 2020, it is anticipated that the properties completed in 2019 will be placed on the tax roll so it is anticipated, depending on how quickly development occurs, that capitalized interest will be used to pay a portion of the interest on the Series 2019 bonds from 9/2/19 to 9/1/2020. Any amounts remaining in the capitalized interest fund and not used to pay interest on the 2019 Bonds will be transferred to the project fund.

The City engaged The Gregory Group to complete an absorption study to project the number of building permits expected to be pulled in 2018 and 2019. The consultant projected 138 building permits pulled for the remainder of 2018 and 329 for 2019. However, should development not occur at the assumed rate, tentative map properties would be expected to pay a portion of the special tax. To be conservative, the Municipal Advisor and Underwriter assumed the projected 138 building permits for the remainder of this year and a more modest 142 building permits pulled next year. The lower debt service can be supported by the more conservative number of building permits and would not require tentative map properties to pay any special taxes. However, while we believe this risk is reduced, there is no guarantee that tentative mapped properties will not need to pay special taxes should development fall below the conservative number of units used in the determining the size of the 2019 Bonds.

Estimated Financing Results (assumes market rates as of November 5, 2018):

	New Money
Par Amount of Bonds	\$19,680,000
Project Fund	\$17,617,666
Total Debt Service	\$39,470,902
"All-In" True Interest Cost	4.62%

The 2019 bonds are expected to sold as non-rated securities; this is because of the development risk associated with special tax bonds. There are a significant number of buyers in the municipal market that are familiar with special tax bonds and demand is expected to be robust given the Spring Lake District is approximately 81% developed and has a relatively high value-to-lien ratio of 11.66:1.

The table below shows the debt service from the existing 2013 Bonds, the existing 2016 Bonds and the estimated debt service for the proposed 2019

City of Woodland
Community Facilities District No. 2004-1 (Spring Lake)
Total Debt Service

September 1	Series 2013^[1]	Series 2016^[1]	Series 2019^{[2][3]}	Total Debt Service^[2]
2019	\$2,129,900.00	\$1,118,206.26	-	\$3,248,106.26
2020	2,125,180.00	1,120,506.26	-	3,245,686.26
2021	2,125,900.00	1,117,656.26	1,125,050.00	4,368,606.26
2022	2,119,420.00	1,124,806.26	1,148,850.00	4,393,076.26
2023	2,115,960.00	1,126,656.26	1,171,450.00	4,414,066.26
2024	2,105,300.00	1,128,356.26	1,192,850.00	4,426,506.26
2025	2,107,660.00	1,129,906.26	1,218,050.00	4,455,616.26
2026	2,112,380.00	1,121,306.26	1,241,850.00	4,475,536.26
2027	2,114,240.00	1,122,856.26	1,269,250.00	4,506,346.26
2028	2,108,240.00	1,129,256.26	1,291,500.00	4,528,996.26
2029	2,109,600.00	1,125,356.26	1,316,750.00	4,551,706.26
2030	2,112,880.00	1,121,293.76	1,344,750.00	4,578,923.76
2031	2,102,860.00	1,127,068.76	1,370,250.00	4,600,178.76
2032	2,109,980.00	1,122,343.76	1,398,250.00	4,630,573.76
2033	2,098,360.00	1,132,443.76	1,428,500.00	4,659,303.76
2034	2,103,660.00	1,127,018.76	1,425,750.00	4,656,428.76
2035	-	3,246,400.00	1,426,500.00	4,672,900.00
2036	-	3,243,750.00	1,425,500.00	4,669,250.00
2037	-	3,243,200.00	1,427,750.00	4,670,950.00
2038	-	3,240,400.00	1,428,000.00	4,668,400.00
2039	-	3,243,800.00	1,426,250.00	4,670,050.00
2040	-	3,238,000.00	1,427,500.00	4,665,500.00
2041	-	3,233,200.00	1,426,500.00	4,659,700.00
2042	-	3,239,200.00	1,428,250.00	4,667,450.00
2043	-	2,225,400.00	1,427,500.00	3,652,900.00
2044	-	1,227,400.00	1,429,250.00	2,656,650.00
2045	-	546,000.00	1,428,250.00	1,974,250.00
2046	-	-	1,429,500.00	1,429,500.00
2047	-	-	1,427,750.00	1,427,750.00
2048	-	-	1,428,000.00	1,428,000.00
Total	\$33,801,520.00	\$47,921,787.66	\$37,929,600.00	\$119,652,907.66

^[1] Per US Bank and as of 11.7.18

^[2] Preliminary and subject to change. Series 2019 Bonds based on interest rates as of 11.5.18.

Bonds: ^[3] Net of capitalized interest through 9.1.2020.

The table below shows the estimated costs of issuance used for the latest estimates:

Estimated Costs of Issuance

	Estimated Issue Size	\$19,650,000
Role	Company	Total

Bond Counsel	KMTG	50,000.00
Disclosure Counsel	Schiff Hardin	80,000.00
City Administration Fee	City of Woodland	10,000.00
Municipal Advisor	Del Rio Advisors, LLC	52,500.00
Municipal Advisor Expenses	Del Rio Advisors, LLC	500.00
Special Tax Consultant	Goodwin Consulting Group	42,000.00
Appraisal	Integra Realty Resources	24,000.00
Absorption Study	The Gregory Group	12,000.00
Overlapping Debt Statement	CalMuni (Reimburse to Goodwin)	700.00
Fiscal Agent	U.S. Bank, National Association	3,700.00
Fiscal Agent Counsel	U.S. Bank, National Association	2,500.00
Printing	TBD	7,500.00
Miscellaneous / Contingency	Misc.	4,600.00
Total Estimated Costs		\$290,000.00

Documents Presented for Approval:

Official Statement: This document serves as the primary document used by the Underwriter (Piper Jaffray) to market and sell the bonds to investors. The document contains summary information about the bonds, the District and all related provisions.

Next Steps in The Bond Issuance Process

Should the City Council approve the financing, it is anticipated that the sale of the bonds will occur at the beginning of January and the transaction will close in the latter half of January.

Tuesday November 20, 2018	City Council Consideration
Week December 17, 2018	Print and Post the Preliminary Official Statement
Tuesday January 15, 2019	Sell the Bonds
Week of January 21, 2019	Execute all Documents
Tuesday January 29, 2019	Close and Transfer Funds

Certain members of the financing team are present to answer any questions. The financing team consists of the following members:

Bond Counsel:	Kronick Moskovitz Tiedemann & Girard
Disclosure Counsel:	Schiff Hardin LLP
Municipal Advisor:	Del Rio Advisors, LLC
Underwriter:	Piper Jaffray
Special Tax Consultant:	Goodwin Consulting Group
Fiscal Agent:	U.S. Bank, N.A.

Conclusion:

Staff Recommends that the City Council adopt Resolution No. ____, Confirming Previous Actions for the Issuance of the Special Tax Bonds for Community Facilities District No. 2004-1 (Spring Lake), Approving a Revised Form of the Official Statement Relating to the Bonds, and Approving Certain Other Actions Related Thereto.

Prepared By: Kim McKinney, Finance Officer



Paul Navazio
City Manager

Attachments:

1. Resolution - 2019 Special Tax Bonds
2. Preliminary Official Statement

**CITY OF WOODLAND
COMMUNITY FACILITIES DISTRICT NO. 2004-1
(SPRING LAKE)**

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WOODLAND
CONFIRMING PREVIOUS ACTIONS FOR THE ISSUANCE OF SPECIAL TAX
BONDS FOR COMMUNITY FACILITIES DISTRICT NO. 2004-1 (SPRING LAKE),
APPROVING A REVISED FORM OF THE OFFICIAL STATEMENT RELATING TO
THE BONDS, AND APPROVING CERTAIN OTHER ACTIONS RELATED THERETO**

WHEREAS, by Resolution No. 7131 adopted on July 17, 2018 (the “Resolution”), the City Council of the City of Woodland (the “City”), approved the issuance of a series of special tax bonds (the “Bonds”) for the City’s Community Facilities District No. 2004-1 (Spring Lake) (the “CFD”) for the purpose of financing the design, construction, and acquisition of public facilities in and for the CFD and designated them as Series 2018 (Capital Projects);

WHEREAS, pursuant to the Resolution, the City Council approved the issuance of the Bonds in an amount not to exceed \$23,500,000 and approved forms of the Second Supplemental Fiscal Agent Agreement pursuant to which the City will issue the Bonds, the Bond Purchase Agreement whereby the City will sell the Bonds to Piper Jaffray & Co., the Official Statement relating to the Bonds, and the Continuing Disclosure Certificate;

WHEREAS, based on updated information and recommendations from the City’s financing team, the City Council desires to approve a revised version of the preliminary form of the Official Statement relating to the Bonds and confirm its authorization of the other financing documents;

WHEREAS, it appears to the City Council that the actions contemplated herein are desirable and in the best interests of the City;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Woodland, that:

Section 1. Recitals. The foregoing recitals are true and correct and the City Council so finds and determines.

Section 2. Confirmation of Previous Actions. The City Council hereby confirms its previous action in Resolution No. 7131 authorizing the issuance and sale of not to exceed \$23,500,000 principal amount of Bonds and redesignates them as Series 2019 (Capital Projects). The City Council further confirms its authorization of the execution and delivery of the Second Supplemental Fiscal Agent Agreement, the Bond Purchase Agreement, and the Continuing Disclosure Certificate pursuant to the terms of Resolution No. 7131. The City Council also confirms that the proposed bond issue does not present an unusual risk of default and that, as permitted by Government Code section 53345.8 and Section 4.1(D) of the Fiscal Agent Agreement, the use of both assessed valuations and appraised values to establish the required value-to-lien ratio complies with the applicable policy stated in the City’s “Community Facilities District Financing for Public Infrastructure and Public Facilities.”

Section 3. Approval of the Official Statement; Authorization of Officers to Execute and Deliver Official Statement. The proposed preliminary form of the Official Statement, as presented to this meeting and on file with the City Clerk, is hereby approved. The City Manager, the Finance Officer, and their designees (the “Designated Officers”), and each of them individually, for and in the name of and on behalf of the City, are hereby authorized and directed to execute the Official Statement in final form, with such changes, insertions, revisions, corrections, or amendments as shall be approved by the officer or officers executing the Official Statement for the City. The execution of the Official Statement by a Designated Officer or Officers shall constitute conclusive evidence of such officer’s or officers’ and the City Council’s approval of any such changes, insertions, revisions, corrections, or amendments to the preliminary form of Official Statement presented to the City Council at this meeting.

Section 4. Distribution of Official Statement. The City Council hereby authorizes Piper Jaffray & Co. (the “Underwriter”) to distribute copies of the Preliminary Official Statement to persons who may be interested in the purchase of the Bonds. The City Council hereby authorizes and directs the Designated Officers, and each of them individually, to deliver to the Underwriter a certificate to the effect that the City Council deems the Preliminary Official Statement, in the form approved by the City Manager or the Finance Officer, to be final and complete as of its date, except for certain final pricing and related information that may be omitted pursuant to Rule 15c2-12 of the Securities and Exchange Commission. The City Council hereby authorizes and directs the City Manager and the Finance Officer, or either of them, to execute the final Official Statement in substantially the form of the Preliminary Official Statement, with such changes as such officer may require or approve, such approval to be conclusively evidenced by the execution thereof (the “Official Statement”), and authorizes and directs the Underwriter to deliver copies of the Official Statement to all purchasers of the Bonds.

Section 5. Disclosure of Specified Financing Information. Pursuant to the requirements of Government Code section 5852.1, the City Council is required to disclose at a public meeting certain information related to the financing. The City Council has obtained from its municipal advisor updated good faith estimates of this required information and hereby discloses the estimates as shown in Exhibit A attached hereto and incorporated herein by reference.

Section 6. General Authorization. The City Council hereby authorizes and directs the Designated Officers and other officers and agents of the City, and each of them individually, for and in the name of and on behalf of the City Council, to do any and all things and to execute and deliver any and all documents that they may deem necessary or advisable in order to complete the sale, issuance, and delivery of the Bonds and otherwise to carry out, give effect to, and comply with the terms and intent of this resolution. All actions heretofore taken by such officers and agents that are in conformity with the purposes and intent of this resolution are hereby ratified, confirmed and approved in all respects.

Section 7. Effective Date. This resolution shall take effect immediately upon its passage.

APPROVED, PASSED AND ADOPTED on November 20, 2018, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

City Clerk of the City of Woodland

Exhibit A

Specified Financial Information

The good faith estimates set forth herein are provided with respect to the City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Bonds, Series 2019 (Capital Projects) (the “Bonds”). Such good faith estimates have been provided to the City by Del Rio Advisors, LLC, as municipal advisor to the City. Each estimate is based on the City’s financing plan and current market conditions, including market interest rates prevailing at the time of preparation of the estimate.

Principal Amount. The estimated aggregate principal amount of the Bonds to be sold is \$19,680,000.

True Interest Cost. The estimated true interest cost of the Bonds, which means the rate necessary to discount the amounts payable on the respective principal and interest payment dates to the purchase price received for the Bonds, is 4.503524%.

Finance Charge. The estimated finance charge for the Bonds, which means the sum of all fees and charges paid to third parties (or costs associated with the Bonds), is \$290,000 and is estimated at \$486,800 including the underwriter’s discount.

Amount of Proceeds to be Received. The estimate of the amount of proceeds to be received by the City from the sale of the Bonds, less the finance charge of the Bonds, as estimated above, and less estimated reserves and capitalized interest, is \$17,617,666.

Total Payment Amount. The estimated total payment amount, which means the sum total of all payments the City will make to pay debt service on the Bonds, plus the finance charge for the Bonds, as described above, not paid with the proceeds of the Bonds, calculated to the final maturity of the Bonds, is \$39,470,902.

The foregoing estimates are good faith estimates only. The actual figures may differ from the estimates owing to (a) differences between assumptions regarding the date of the sale of the Bonds, the principal amount of Bonds sold, the amortization of the Bonds, and market interest rates at the time of sale of the Bonds and actual facts, (b) other market conditions, (c) changes in the City’s financing plan, or (d) a combination of such factors.

PRELIMINARY OFFICIAL STATEMENT DATED DECEMBER __, 2018

NEW ISSUE–BOOK-ENTRY ONLY

NO RATING

In the opinion of Kronick, Moskovitz, Tiedemann & Girard, a Professional Corporation, Sacramento, California, Bond Counsel, based upon an analysis of existing statutes, regulations, rulings and court decisions and assuming, among other things, the accuracy of representations and compliance with certain covenants, interest on the Series 2019 Bonds is excludable from gross income for federal income tax purposes and is exempt from State of California personal income taxes. In the further opinion of Bond Counsel, interest on the Series 2019 Bonds is not an item of tax preference for purposes of the federal alternative minimum tax. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual or receipt of interest on, the Series 2019 Bonds. See “*TAX MATTERS.*”

\$ __, __, 000*
CITY OF WOODLAND
COMMUNITY FACILITIES DISTRICT NO. 2004-1
(SPRING LAKE)
SPECIAL TAX BONDS, SERIES 2019
(CAPITAL PROJECTS)

Dated: Date of Delivery

Due: September 1, as shown on the inside cover

The proceeds received from the issuance of the \$ __, __, 000* principal amount of City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Bonds, Series 2019 (Capital Projects) (the “Series 2019 Bonds”) will be used by the City of Woodland (the “City”) on behalf of the City of Woodland Community Facilities District No. 2004-1 (Spring Lake) (the “District”) located in the City to: (i) reimburse Developer Property Owners (defined herein) within the District for the costs of acquiring, constructing, and installing certain public improvements within the District, consisting generally of storm drainage facilities, road improvements and land acquisition (collectively, the “2019 Project”); (ii) fund capitalized interest on a portion of the Series 2019 Bonds through and including September 1, 2020; (iii) make a deposit into the Bond Reserve Fund; and (iv) pay certain costs associated with the issuance of the Series 2019 Bonds. See “*PLAN OF FINANCE*” and “*ESTIMATED SOURCES AND USES OF FUNDS.*”

The Series 2019 Bonds are being issued pursuant to the Mello-Roos Community Facilities Act of 1982, as amended (Sections 53311 *et seq.* of the California Government Code) (the “Law”), and the provisions of a Fiscal Agent Agreement, dated October 1, 2013 (the “Master Fiscal Agent Agreement”), as amended and supplemented by a First Supplemental Fiscal Agent Agreement dated November 1, 2016 (the “First Supplemental Fiscal Agent Agreement”) and the Second Supplemental Fiscal Agent Agreement dated January 1, 2019 (the “Second Supplemental Fiscal Agent Agreement,” and collectively with the Master Fiscal Agent Agreement, and the First Supplemental Fiscal Agent Agreement, the “Fiscal Agent Agreement”) each by and between the City and U.S. Bank, National Association, as fiscal agent (the “Fiscal Agent”).

The Series 2019 Bonds are payable on a parity with \$23,920,000 outstanding principal amount of City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Refunding Bonds, Series 2013 and \$26,540,000 outstanding principal amount of City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Bonds (Refunding and Capital Projects), Series 2016 payable from a special tax levied annually on Taxable Property (defined herein) located within the District,

including any such taxes that are prepaid and any penalties and interest collected on delinquent payments (the “Special Tax”) pursuant to a Rate, Method of Apportionment, and Manner of Collection of Special Tax (the “Special Tax Formula”) and from certain other funds pledged under the Fiscal Agent Agreement. The Special Tax is levied according to the Special Tax Formula approved by a vote of the qualified landowner electors within the District. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS,” and APPENDIX B–“RATE, METHOD OF APPORTIONMENT, AND MANNER OF COLLECTION OF SPECIAL TAX.” The Special Tax is secured by a lien on certain real property within the District and does not constitute a personal indebtedness of the respective property owners.

The Series 2019 Bonds will be issued in fully registered form, in denominations of \$5,000 or any integral multiple thereof, and will be initially registered in the name of Cede & Co., as nominee of The Depository Trust Company, as described herein. The principal of the Series 2019 Bonds is payable upon their respective stated maturities on September 1 of each year as set forth on the inside cover. Interest on the Series 2019 Bonds is payable semi-annually on September 1 and March 1 of each year, commencing [March] 1, 2019 at the rates shown on the inside cover. See “THE SERIES 2019 BONDS” AND APPENDIX H–“DTC AND THE BOOK-ENTRY ONLY SYSTEM.”

The Series 2019 Bonds are subject to optional and mandatory redemption as described herein. See “THE SERIES 2019 BONDS–Redemption Provisions.”

The Series 2019 Bonds are limited obligations of the City payable, as to principal of and interest on and redemption premiums, if any, solely from Net Special Tax revenues received from the levy of the Special Tax on Taxable Property (defined herein) within the District and certain funds established pursuant to the Fiscal Agent Agreement and held by the Fiscal Agent, as more fully described herein. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS.” Neither the faith and credit nor the general taxing power of the City, the County of Yolo, the State of California, or any political subdivision thereof is pledged to the payment of the Series 2019 Bonds. The Series 2019 Bonds are not secured by a legal or equitable pledge, charge, lien or encumbrance, upon any property of the City, or upon any of its income or receipts except the amounts that are, under the Fiscal Agent Agreement and the Law, set aside for the payment of the Series 2019 Bonds. Neither the members of the City Council of the City nor any persons executing the Series 2019 Bonds are liable personally on the Series 2019 Bonds by reason of their issuance.

MATURITY SCHEDULE
(See inside cover page)

This cover page contains information for quick reference only. It is *not* a complete summary of the Series 2019 Bonds. See “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS.” Investors should read the entire Official Statement to obtain information essential to making an informed investment decision.

The Series 2019 Bonds are offered when, as and if issued, subject to the approval as to their legality by Kronick, Moskovitz, Tiedemann & Girard, a Professional Corporation, Sacramento, California, Bond Counsel, and certain other conditions. Certain legal matters will be passed on for the City by Best, Best & Krieger, LLP, Sacramento, California, as City Attorney. Certain other legal matters will be passed upon for the City by Schiff Hardin LLP, San Francisco, California, Disclosure Counsel to the City, and for the Underwriter by Stradling Yocca Carlson & Rauth, a Professional Corporation, Newport Beach, California. It is anticipated that the Series 2019 Bonds will be available for delivery in book-entry only form through the facilities of DTC on or about January __, 2019.

Piper Jaffray & Co.

Date of Official Statement: January __, 2019.

MATURITY SCHEDULE

\$ __, __, 000*

**CITY OF WOODLAND
COMMUNITY FACILITIES DISTRICT NO. 2004-1
(SPRING LAKE)
SPECIAL TAX BONDS, SERIES 2019
(CAPITAL PROJECTS)
Base CUSIP No.† 979568**

\$ __, __, 000* Serial Series 2019 Bonds

<u>Maturity Date (September 1)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>Price</u>	<u>CUSIP No.†</u>
--	-----------------------------	--------------------------	--------------	--------------	-----------------------

\$ __, __, 000 __. __ % Term Series 2019 Bonds due September 1, 20__—Yield: __. __ %—Price: __. __ %—CUSIP No.† __
\$ __, __, 000 __. __ % Term Series 2019 Bonds due September 1, 20__—Yield: __. __ %—Price: __. __ %—CUSIP No.† __

† CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services (“CGS”) is managed on behalf of the American Bankers Association by S&P Capital IQ. Copyright 2019 CUSIP Global Services. All rights reserved. CUSIP® data herein is provided by CGS. This data is not intended to create a database and does not serve in any way as a substitute for CGS database. The CUSIP® numbers are provided for convenience of reference only. None of the City, the Underwriter, their agents, or counsel is responsible for the selection or uses of the CUSIP® numbers, and no representation is made as to their correctness on the applicable Bonds or as included herein. The CUSIP® numbers of specific maturities is subject to change following the issuance of the Series 2019 Bonds as a result of various actions, including, but not limited to, a refunding in whole or in part or as the result of the procurement of a secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the Series 2019 Bonds.

* Preliminary, subject to change.

No dealer, broker, salesperson or other person has been authorized by the City or the District to give any information or to make any representations other than as contained in this Official Statement, and if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Series 2019 Bonds by any person, in any jurisdiction where such offer, solicitation or sale would be unlawful. The information and expressions of opinion stated herein are subject to change without notice. Neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the City or the District since the date hereof.

All summaries of the documents and laws referred to herein do not purport to be comprehensive or definitive and are qualified in their entireties by reference to each such document and statute. This Official Statement including any amendment or supplement hereto is intended to be deposited with one or more depositories. This Official Statement does not constitute a contract between any Owner of a Series 2019 Bond and the City or the District.

The information set forth herein has been obtained from sources that are believed to be reliable but is not guaranteed as to accuracy or completeness, and is not to be construed as a representation, by the City or the District. This Official Statement is submitted in connection with the sale of the Series 2019 Bonds referred to herein and may not be reproduced or used, in whole or in part, for any other purpose, unless authorized in writing by the City. All summaries of the documents and laws are made subject to the provisions thereof and do not purport to be complete statements of any or all such provisions. All capitalized terms used herein, unless noted otherwise, shall have the meanings given to such terms in the Fiscal Agent Agreement. This Official Statement, including any supplement or amendment hereto, is intended to be deposited with the Electronic Municipal Market Access site maintained by the Municipal Securities Rulemaking Board.

This Official Statement contains forecasts, projections, estimates and other forward-looking statements that are based on current expectations. The words “expects,” “forecasts,” “projects,” “intends,” “anticipates,” “estimates,” “budgets,” “assumes” and analogous expressions are intended to identify forward-looking statements. Such forecasts, projections and estimates are not intended as representations of fact or guarantees of results. Any such forward-looking statements inherently are subject to a variety of risks and uncertainties that could cause actual results or performance to differ materially from those that have been forecast, estimated or projected. Such risks and uncertainties include, among others, changes in social and economic conditions, federal, State and local statutory and regulatory initiatives, litigation, population changes, seismic events and various other events, conditions and circumstances, many of which are beyond the control of the City and the District. These forward-looking statements speak only as of the date of this Official Statement. The City and the District disclaim any obligation or undertaking to release publicly any updates or revisions to such forward-looking statements contained herein if or when the expectations, events, conditions or circumstances on which such statements are based, occur, or if actual results, performance or achievements are materially different from any results, performance or achievements described or implied by such forward-looking statements.

The Underwriter has provided the following sentence for inclusion in this Official Statement: The Underwriter has reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriter does not guarantee the accuracy or completeness of such information.

In connection with this offering, the Underwriter may overallocate or effect transactions which stabilize or maintain the market price of the Series 2019 Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time. The Underwriter may offer and sell the Series 2019 Bonds to certain dealers and banks at prices lower than the initial public offering prices stated on the inside cover page and such public offering prices may be changed from time to time by the Underwriter.

The issuance and sale of the Series 2019 Bonds have not been registered under the Securities Act of 1933 or the Securities Exchange Act of 1934, both as amended, in reliance upon exemptions provided thereunder by Sections 3(a)(2) and 3(a)(12), respectively, for the issuance and sale of municipal securities. The registration or qualification of the Series 2019 Bonds in accordance with applicable provisions of securities laws of the states in which these Series 2019 Bonds have been registered or qualified, and the exemption from registration or qualification in other states, shall not be regarded as a recommendation thereof. None of these states or any of their agencies have passed upon the merits of the securities or the accuracy or completeness of this Official Statement. Any representation to the contrary may be a criminal offense.

The City maintains a website. Unless specifically indicated otherwise, the information presented on that website is *not* incorporated by reference as part of this Official Statement and should not be relied upon in making investment decisions with respect to the Series 2019 Bonds.

CITY OF WOODLAND

MAYOR AND CITY COUNCIL

Enrique Fernandez, *Mayor, District 4*
Xóchitl Rodriguez, *Mayor Pro Tempore, District 5*
Angel Barajas, *Councilmember, At Large*[†]
Marlin H. “Skip” Davies, *Councilmember, At Large*[†]
Tom Stallard, *Councilmember, District 2*

CITY STAFF

Paul Navazio, *City Manager*
Kimberly McKinney, *Finance Officer*
Ana B. Gonzalez, *City Clerk*

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Kronick, Moskovitz, Tiedemann & Girard,
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Sacramento, California
Bond Counsel

Schiff Hardin LLP
San Francisco, California
Disclosure Counsel

Del Rio Advisors, LLC
Modesto, California
City Municipal Advisor

U.S. Bank, National Association
San Francisco, California
Fiscal Agent

Goodwin Consulting Group, Inc.
Sacramento, California
Special Tax Consultant

Integra Realty Resources – Sacramento
Rocklin, California
Appraiser

The Gregory Group
Folsom, California
Absorption Consultant

[†] Pursuant to Measure U approving elections of City Councilmembers by District, the voters of District 1 elected Richard Lansburgh and the voters of District 3 elected Angel Barajas to four-year terms at the election held on November 6, 2018. They will each be sworn in on December [3], 2018. See APPENDIX A—GENERAL AND ECONOMIC INFORMATION FOR THE CITY OF WOODLAND—City of Woodland.”

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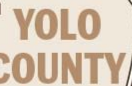
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\$ __, __, 000*
CITY OF WOODLAND
COMMUNITY FACILITIES DISTRICT NO. 2004-1
(SPRING LAKE)
SPECIAL TAX BONDS, SERIES 2019
(CAPITAL PROJECTS)

INTRODUCTION

The description and summaries of various documents hereinafter set forth do not purport to be comprehensive or definitive, and reference is made to each document for the complete details of all terms and conditions. All statements herein are qualified in their entirety by reference to each document. All capitalized terms used in this Official Statement and not otherwise defined herein have the same meanings as set forth in the Fiscal Agent Agreement (defined below). See also, APPENDIX E–“SUMMARY OF CERTAIN PROVISIONS OF THE FISCAL AGENT AGREEMENT–DEFINITIONS.”

Authorization; Purpose

This Official Statement, which includes the cover page and attached Appendices, provides certain information concerning the issuance of the City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Bonds, Series 2019 (Capital Projects) in the principal amount of \$ __, __, 000* (the “Series 2019 Bonds”). The Series 2019 Bonds are being issued pursuant to the terms and provisions of the Mello-Roos Community Facilities Act of 1982, as amended, constituting Sections 53311, *et seq.* of the California Government Code (the “Law”), and a Fiscal Agent Agreement, dated October 1, 2013 (the “Master Fiscal Agent Agreement”), as amended and supplemented by a First Supplemental Fiscal Agent Agreement dated November 1, 2016 (the “First Supplemental Fiscal Agent Agreement”) and the Second Supplemental Fiscal Agent Agreement dated January 1, 2019 (the “Second Supplemental Fiscal Agent Agreement,” and collectively with the Master Fiscal Agent Agreement, and the First Supplemental Fiscal Agent Agreement, the “Fiscal Agent Agreement”) each by and between the City and U.S. Bank, National Association, as fiscal agent (the “Fiscal Agent”).

The Law was enacted by the California Legislature to provide an alternate method of financing certain public capital facilities and services, especially in developing areas of the State of California (the “State”). Once duly established by a city, county or other local agency, a community facilities district is a legally constituted governmental entity within defined boundaries, with the governing board or legislative body of the local agency acting on its behalf. Subject to approval by a two-thirds vote of a district’s qualified electors and compliance with the provisions of the Law, a legislative body of a local agency may issue bonds for a community facilities district and may levy and collect a special tax within such district to repay such indebtedness.

Pursuant to the Law, the City Council adopted Resolution No. 4559 on June 22, 2004 (“Resolution No. 4559”), providing for the establishment of the City of Woodland Community Facilities District No. 2004-1 (Spring Lake) (the “District”) and calling an election to authorize the issuance of bonds and the collection and levying of an annual special tax on Taxable Property (defined herein) in the District, including any such taxes that are prepaid and any penalties and interest collected on delinquent payments (the “Special Tax”). On June 22, 2004 at a special election held pursuant to the Law, 100% of the qualified landowner electors in the District, authorized the issuance of special tax bonds in an amount not to exceed \$112,500,000 (the “Bonds”) to finance the acquisition and construction of certain facilities (the

* Preliminary, subject to change.

“Facilities”), and approved the maximum special tax, the method of apportionment, and manner of collection of the Special Tax to pay for the Facilities, including the payment of interest on and principal of the Bonds, the repayment of funds advanced to the District, the annual administration expenses of the City and the District in determining, apportioning, levying and collection of the Special Tax and all authorized incidental expenses through Fiscal Year 2049-50. See APPENDIX B–“RATE, METHOD OF APPORTIONMENT, AND MANNER OF COLLECTION OF SPECIAL TAX.”

Following issuance of the Series 2019 Bonds, there will be [\$31,524,600*] principal amount of unissued authorization remaining pursuant to Resolution No. 4559.

The proceeds received from the sale of Series 2019 Bonds will be used by the City on behalf of the District to: (i) reimburse Developer Property Owners (defined herein) within the District for the costs of acquiring, constructing, and installing certain public improvements within the District, consisting generally of storm drainage facilities (collectively, the “2019 Project”); (ii) fund capitalized interest on a portion of the Series 2019 Bonds through and including September 1, 2020; (iii) make a deposit into the Bond Reserve Fund; and (iv) pay certain costs associated with the issuance of the Series 2019 Bonds. See “PLAN OF FINANCE” and “ESTIMATED SOURCES AND USES OF FUNDS.”

The Series 2019 Bonds

The Series 2019 Bonds will only be issued in authorized denominations of \$5,000 or any integral multiple of \$5,000 in excess thereof (“Authorized Denominations”). Principal of the Series 2019 Bonds is payable on September 1 of each year (each a “Principal Payment Date”) as set forth on the inside cover. Interest on the Series 2019 Bonds is payable semi-annually on September 1 and March 1 of each year, commencing [March] 1, 2019 (each, an “Interest Payment Date”). See “THE SERIES 2019 BONDS.”

Security and Sources of Payment for the Bonds

The Series 2019 Bonds are payable on a parity with the City’s Series 2013 Bonds and Series 2016 Bonds (each as defined below) from revenues received from the Special Tax levied by the City (including any prepayment thereof and proceeds from foreclosure sales pursuant to the Fiscal Agent Agreement) on Taxable Property (as defined in the Special Tax Formula) in the District (the “Special Taxes”) *less* annual Administrative Expenses (as defined herein) in an amount of \$28,154 in Fiscal Year 2018-19, increased by 2% per year (compounded) each Fiscal Year thereafter (the “Net Special Taxes”), the bond reserve fund established under the Fiscal Agent Agreement (the “Bond Reserve Fund”) and money in certain other funds and accounts established under the Fiscal Agent Agreement. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS.” The Special Tax is included on the regular property tax bill sent to the record owners of property within the District. The City covenants in the Fiscal Agent Agreement for the benefit of the owners of the Bonds, under the circumstances described herein, to commence judicial foreclosure proceedings against property delinquent in the payment of the Special Taxes and to diligently pursue such proceedings to completion. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS–Special Tax Authorization” and “–Delinquent Payments of Special Tax; Covenant to Foreclose.”

* Preliminary, subject to change.

The Series 2019 Bonds are limited obligations of the City payable, as to principal of, interest on, and redemption premiums, if any, solely from the proceeds of Net Special Tax received from the levy of the Special Tax on Taxable Property (including any prepayments thereof and proceeds from the sale of property collected pursuant to the foreclosure provisions of the Fiscal Agent Agreement for the delinquency of the Special Tax) and amounts in certain funds and accounts established in the Fiscal Agent Agreement. Neither the full faith and credit nor the general taxing power of the City is pledged for the payment of the interest on, principal of and redemption premiums, if any, on the Series 2019 Bonds. The Series 2019 Bonds are not secured by a legal or equitable pledge, charge, lien or encumbrance, upon any property of the City, or upon any of its income or receipts except the amounts that are, under the Fiscal Agent Agreement and the Law, set aside for the payment of the Series 2019 Bonds. Neither the members of the City Council of the City nor any persons executing the Series 2019 Bonds are liable personally on the Series 2019 Bonds by reason of their issuance.

Net Special Taxes. Payments of interest on and principal of the Bonds will be made *solely* from the Net Special Taxes received from the Special Tax authorized to be levied annually by the City on all property in the District that is not exempt from the Special Tax (collectively, the “Taxable Property”) pursuant to Special Tax Formula (defined herein) under and pursuant to the Law and the election held in the District on June 22, 2004. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS—Special Tax Authorization.”

Bond Reserve Fund. The Fiscal Agent Agreement established a Bond Reserve Fund as security for the Bonds, which is required to be funded in an amount equal to the Bond Reserve Requirement. Following the issuance of the Series 2019 Bonds, the Bond Reserve Requirement is \$_____. Proceeds from the issuance of the Series 2019 Bonds in the amount of \$_____ will be deposited into the Bond Reserve Fund to bring the amount on deposit therein equal to the Bond Reserve Requirement. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS—Bond Reserve Fund.”

Parity Debt. The Series 2019 Bonds will be payable on a parity with \$23,920,000 outstanding principal amount of City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Refunding Bonds, Series 2013 (the “Series 2013 Bonds”) and \$26,540,000 outstanding principal amount of City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Bonds (Refunding and Capital Projects), Series 2016 (the “Series 2016 Bonds,” and together with the Series 2013 Bonds, the “Outstanding Parity Bonds”). The Series 2013 Bonds were issued pursuant to the Master Fiscal Agent Agreement to refund the City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Bonds, Series 2004, and the Series 2016 Bonds were issued pursuant to the Master Fiscal Agent Agreement, as amended and supplemented by the First Supplemental Fiscal Agent Agreement, to finance the construction and acquisition of certain public improvements in the District and refund six separate series of City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Subordinate Special Tax Bonds. The Master Fiscal Agent Agreement permits the City to issue Additional Bonds secured on a parity with the Bonds. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS—Additional Bonds.”

The City

The City is located in Yolo County (the “County”) approximately 20 miles northwest of Sacramento at the intersection of Interstate 5 and State Route 113 and approximately 81 miles northeast of San Francisco. The City is the seat of government for the County. For additional information regarding the City, see APPENDIX A—“GENERAL AND ECONOMIC INFORMATION FOR THE CITY OF WOODLAND.”

The Spring Lake Specific Plan Area

Pursuant to its general plan, an approximately 1,748 acre area (the “Master Plan Area”) south of the existing City limits was identified as the area in which future growth would occur. In December 2001, the City Council adopted a specific plan, as amended, for the development of approximately 1,097 acres within the Master Plan Area (the “Spring Lake Specific Plan Area”). See “THE SPRING LAKE SPECIFIC PLAN AREA.”

The District

General. The District comprises approximately 808 non-contiguous acres of the Spring Lake Specific Plan Area. It is expected that upon full buildout of the District, including annexation of the remaining approximately 25 acres in the Spring Lake Specific Plan Area, approximately 3,146 single-family units, approximately 1,025 multi-family housing units, approximately seven acres of commercial development and approximately 30 acres of parks and open space will be developed. See “THE DISTRICT.”

As of the Fiscal Year 2018-19 tax levy, there were 1,900 parcels of Taxable Property within the District. The Taxable Property is comprised of: (i) 1,671 parcels of “Developed Property” (defined in the Special Tax Formula as any parcel for which a building permit was issued prior to January 1 of the preceding Fiscal Year) of which 1,641 parcels had improvement value and 30 parcels did not have improvement value; and (ii) 229 parcels designated as “Small Lot Tentative Map Property” (as defined in the Special Tax Formula). There are also two lots in the District that do not have a building unit allocation (a “BUA”). Pursuant to the Special Tax Formula, parcels without a BUA are not subject the Special Tax and no “Undeveloped Property” (as defined in the Special Tax Formula) in the District is currently being taxed. See “THE DISTRICT–Building Unit Allocation Ordinance” and “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS–Special Tax Formula.”

Property Values. The City retained the services of Integra Realty Resources – Sacramento (the “Appraiser”) to provide an estimate of value of the improved lots, single-family homes (without a current assessed values for improvements and those under construction), finished single-family lots, and unimproved lots requiring in-tract improvements (the “Appraisal”) and The Gregory Group (the “Absorption Consultant”) to perform a market absorption study with respect to the appraised property. See “THE DISTRICT–Status of Development,” “–Property Values in the District,” APPENDIX C–“APPRAISAL OF REAL PROPERTY,” and APPENDIX D–“ABSORPTION STUDY.”

The aggregate assessed and appraised value of the District (based upon the assumptions and limiting conditions contained in the Appraisal) as of September 11, 2018 is estimated to be not less than \$846.1 million.

Risk Factors and Investment Considerations

An investment in the Series 2019 Bonds involves a substantial degree of risk and each prospective investor should consider its financial condition and the risks involved to determine the suitability of investing in the Series 2019 Bonds.

The Series 2019 Bonds have not been rated and there may not be a public market for the Series 2019 Bonds.

See “CERTAIN RISKS TO BONDHOLDERS AND INVESTMENT CONSIDERATIONS” for a discussion of some of the risk factors that should be considered, in addition to the other matters set forth herein, in evaluating the investment quality of the Series 2019 Bonds.

Continuing Disclosure

The City has covenanted for the benefit of Owners and Beneficial Owners to provide certain financial information and operating data relating to the City not later than seven months following the end of each Fiscal Year, commencing with report due [January 31, 2019] (the “Annual Report”), and to provide notices of the occurrence of certain significant events. The Annual Report and the notices of significant events will be filed with the Municipal Securities Rulemaking Board (the “MSRB”) through its Electronic Municipal Market Access site. The specific nature of the information to be contained in the Annual Report and the notices of significant events is set forth in APPENDIX F–“FORM OF CONTINUING DISCLOSURE CERTIFICATE.” These covenants have been made in order to assist the Underwriter in complying with S.E.C. Rule 15c2-12(b)(5).

Additional Information

Brief descriptions of the Series 2019 Bonds, the security for the Series 2019 Bonds, the Special Tax, the Special Tax Formula, the City, the District and the property in the District are included in this Official Statement together with summaries of certain provisions of the Series 2019 Bonds, the Fiscal Agent Agreement, the Spring Lake Specific Plan, the Facilities Financing Plan, and certain other documents. Such descriptions do not purport to be comprehensive or definitive. Capitalized terms used herein and not otherwise defined shall have the meanings given to such terms as set forth in the Fiscal Agent Agreement. All references herein to the Fiscal Agent Agreement, the Spring Lake Specific Plan, the Appraisal, the Absorption Study, and other documents are qualified in their entirety by reference to such documents, and references herein to the Series 2019 Bonds are qualified in their entirety by reference to the form thereof included in the Fiscal Agent Agreement, copies of which are available prior to the issuance of the Series 2019 Bonds at the office of the Finance Officer of the City, City of Woodland, City Hall, 300 First Street, Woodland, California 95695, telephone: 530-661-5830 and thereafter at the office of the Fiscal Agent, U.S. Bank National Association, One California Street, Suite 2550, San Francisco, California 94111; telephone: 415-273-4517.

PLAN OF FINANCE

A portion of the proceeds from the sale of the Series 2019 Bonds will be used to reimburse Developer Property Owners (defined herein) within the District for the costs of acquiring, constructing and installing certain improvements within the District, consisting generally of storm drainage facilities, road improvements and land acquisition (collectively, the “2019 Project”). See “ESTIMATED SOURCES AND USES OF FUNDS.”

ESTIMATED SOURCES AND USES OF FUNDS

The estimated sources and uses of funds in connection with the financing are set forth in Table 1 below:

Table 1 Estimated Sources and Uses of Funds	
Sources of Funds:	
Principal Amount of the Series 2019 Bonds	\$ __, __, __ *
[Less/Plus]: Original Issue [Discount/Premium]	
TOTAL SOURCES	
Uses of Funds:	
Deposit to Series 2019 Acquisition and Construction Account	
Deposit to Interest Fund ⁽¹⁾	
Deposit to Bond Reserve Fund	
Underwriter's Discount	
Costs of Issuance ⁽²⁾	
TOTAL USES	
* Preliminary, subject to change.	
(1) To pay capitalized interest on a portion of the Series 2019 Bonds through and including September 1, 2020.	
(2) Costs of Issuance include City's fees and expenses, Bond Counsel fee, Disclosure Counsel fee, Fiscal Agent fee, Fiscal Agent Counsel fee, Municipal Advisor fee, Special Tax Consultant fee, fees of the Appraiser and the Absorption Consultant, printing costs and other miscellaneous costs of issuance.	

THE SERIES 2019 BONDS

Authority for Issuance

The Series 2019 Bonds are issued pursuant to the Law and the Fiscal Agent Agreement.

Description

The Series 2019 Bonds will be issued in fully registered form only, without coupons, initially registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC") who will act as securities depository for the Series 2019 Bonds. See APPENDIX H—"DTC AND THE BOOK-ENTRY ONLY SYSTEM." Ownership interests in the Series 2019 Bonds may initially be purchased in denominations of \$5,000 or integral multiple thereof ("Authorized Denominations"). The Series 2019 Bonds will mature on September 1 of each year, commencing September 1, 2021, in the principal amounts and years, and bearing rates of interest, as shown on the inside cover of this Official Statement.

Interest on the Series 2019 Bonds will be payable semiannually on March 1 and September 1 of each year (each, an "Interest Payment Date"), commencing [March] 1, 2019, and will be computed on the basis of a 360-day year consisting of twelve 30-day months. Each Series 2019 Bond will bear interest from the date of delivery. So long as the Series 2019 Bonds are held in book-entry only form, principal and interest will be paid directly to DTC for distribution to the beneficial owners of the Series 2019 Bonds in accordance with the procedures of DTC.

Redemption Provisions

Optional Redemption. The Series 2019 Bonds maturing on or after September 1, 20__, are subject to redemption prior to their respective stated maturity dates, at the option of the City, from any source of available funds, as a whole or in part (in Authorized Denominations and by such maturities as may be specified by the City and at random within a maturity) on any date on or after September 1, 20__, at [the following redemption prices (expressed as a percentage of the principal amount of the Series 2019 Bonds called for redemption)/a redemption price equal to the principal amount of the Series 2019 Bonds called for redemption], plus accrued interest to the date fixed for redemption, as set forth below.

Table 2A Optional Redemption	
<u>Redemption Dates</u>	<u>Redemption Price</u>
September 1, 20__ through August 31, 20__	____%
September 1, 20__ through August 31, 20__	____
September 1, 20__ and thereafter	____

Mandatory Redemption from Special Tax Prepayments. The Series 2019 Bonds are subject to mandatory redemption by the City prior to their stated maturity dates, as a whole or in part (in the principal amount of \$5,000 or any integral multiple thereof and by such maturities as may be specified by the City and at random within a maturity) on any Interest Payment Date from prepayments of the Special Taxes, at the following redemption prices (expressed as a percentage of the principal amount of the Series 2019 Bonds called for redemption), together with accrued interest to the date fixed for redemption, as set forth below:

Table 2B Mandatory Redemption From Prepayment of Special Tax	
<u>Redemption Dates</u>	<u>Redemption Price</u>
September 1, 20__ and March 1, 20__	____%
September 1, 20__ and March 1, 20__	____
September 1, 20__ and thereafter	____

Mandatory Sinking Fund Redemption of Term Bonds. The Series 2019 Bonds maturing on September 1, 20__ (the “20__ Term Bonds”) are subject to redemption prior to their stated maturity, in part, at random from Mandatory Sinking Account Payments in the following amounts and on the following dates, at the principal amount thereof on the date fixed for redemption, without premium, but which amounts will be proportionately reduced by the principal amount of all 20__ Term Bonds optionally redeemed.

Table 3A Mandatory Sinking Fund Redemption of 20__ Term Bonds	
<u>Mandatory Redemption Date</u> <u>(September 1)</u>	<u>Amount</u>
†	

† Final Maturity.

The Series 2019 Bonds maturing on September 1, 20__ (the “20__ Term Bonds”) are subject to redemption prior to their stated maturity, in part, at random from Mandatory Sinking Account Payments in the following amounts and on the following dates, at the principal amount thereof on the date fixed for redemption, without premium, but which amounts will be proportionately reduced by the principal amount of all 20__ Term Bonds optionally redeemed.

Table 3B Mandatory Sinking Fund Redemption of 20__ Term Bonds	
Mandatory Redemption Date <u>(September 1)</u>	<u>Amount</u>
†	
† Final Maturity.	

Redemption Procedures

Selection of Bonds for Redemption. If the City does not specify the amount of Series 2019 Bonds to be redeemed, the Fiscal Agent is required to prorate the amount of Bonds to be redeemed between all the Series of Bonds in proportion to the amount of Bonds of each Series that are Outstanding. If the City does not specify the particular maturities of Bonds of a Series to be redeemed, Bonds of such Series shall be redeemed in inverse order of maturity. If less than all the Outstanding Series 2019 Bonds of any maturity are to be redeemed, not more than 45 days prior to the redemption date, the Fiscal Agent is required to select the particular Series 2019 Bonds to be redeemed from the Outstanding Series 2019 Bonds and maturity that have not previously been called for redemption, at random in any manner that the Fiscal Agent in its sole discretion deems appropriate and fair.

The portion of any Bond to be redeemed shall be an Authorized Denomination; provided that, in the case of redemptions made from prepayments of the Special Taxes, the portion of any Series 2019 Bond to be redeemed shall be in the principal amount of \$5,000 or any integral multiple thereof. In selecting Series 2019 Bonds for redemption, each Series 2019 Bond shall be considered as representing that number of Bonds that is obtained by dividing the principal amount of such Series 2019 Bond by the minimum Authorized Denomination.

Notice of Redemption. The Fiscal Agent is required to mail notices of redemption by first class mail, not fewer than 30 nor more than 60 days prior to the redemption date, to the respective Owners of any Series 2019 Bonds designated for redemption at their addresses appearing on the Bond Register; the original underwriter or other first purchaser of the Series 2019 Bonds designated for redemption; and to the Securities Depositories and the Information Service (at the same time it mails notice of redemption to the Owners) by registered or overnight mail, or by such other method as may be acceptable to such institutions.

Each notice of redemption is required to state: (i) the date of the notice; (ii) the Series designation of the Bonds; (iii) the date of issuance of the Series 2019 Bonds; (iv) the Redemption Date; (v) the Redemption Price; (vi) the place or places of redemption (including the name and appropriate address or addresses of the Fiscal Agent); (vii) the CUSIP number (if any) of the maturity or maturities of the Series 2019 Bonds to be redeemed; and, (viii) if less than all of any such maturity, the certificate numbers of the Series 2019 Bonds of such maturity to be redeemed. If any Series 2019 Bond so chosen for redemption is not redeemable in whole, upon presentation of such Series 2019 Bond for redemption there will be issued in lieu of the unredeemed portion of principal thereof a new Series 2019 Bond or Bonds of the same maturity

date, of authorized denominations, equal in aggregate principal amount to such unredeemed portion. See also APPENDIX E—"SUMMARY OF CERTAIN PROVISIONS OF THE FISCAL AGENT AGREEMENT."

Failure of the Fiscal Agent to give notice to one or more of the Information Services or the Securities Depositories or failure of any Owner to receive any such notice or any defect in any such notice will not affect the sufficiency of the proceedings for redemption. Failure by the Fiscal Agent to mail notice to any one or more of the respective Owners of any Series 2019 Bonds designated for redemption will not affect the sufficiency of the proceedings for redemption with respect to the Owner or Owners to whom such notice was mailed.

Conditional Notice of Redemption. The City may, at its option, specify in any notice of optional redemption that redemption is conditional upon the availability of money sufficient to pay the Redemption Price of all the Series 2019 Bonds that are to be redeemed on the date fixed for redemption.

Effect of Redemption. If notice of redemption is given as provided in the Fiscal Agent Agreement and the amount necessary for the payment of the Redemption Price is held by the Fiscal Agent, then on the redemption date designated in such notice (i) the Series 2019 Bonds so to be redeemed will become due and payable at the Redemption Price specified in such notice, (ii) interest on such Series 2019 Bonds will cease to accrue, (iii) such Series 2019 Bonds will cease to be entitled to any benefit or security under the Fiscal Agent Agreement, and (iv) the Owners of such Series 2019 Bonds will have no rights in respect thereof except to receive payment of the Redemption Price.

Rescission of Notice. The City may rescind any optional redemption and notice thereof for any reason on any date prior to the date fixed for redemption by causing written notice of the rescission to be given to the owners of the Series 2019 Bonds so called for redemption. Any optional redemption and notice thereof will be rescinded if, for any reason, on the date fixed for redemption monies are not available in the Redemption Account or otherwise held in trust for such purpose in the amount sufficient to pay in full on said date the principal of, interest, and any premium due on the Series 2019 Bonds called for redemption. Notice of rescission of redemption is required to be given in the same manner in which notice of redemption was originally given. The actual receipt by the owner of any Series 2019 Bond of notice of such rescission will not be a condition precedent to rescission, and failure to receive such notice or any defect in such notice will not affect the validity of the rescission.

SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS

General

The Series 2019 Bonds are limited obligations of the City payable, both as to principal and interest and any premiums upon redemption thereof, solely from Net Special Taxes received from the annual Special Tax levied by the City on Taxable Property within the District, including proceeds from the sale of property collected as result of foreclosure of the lien of the Special Taxes and certain funds and accounts held under the Fiscal Agent Agreement.

The Series 2019 Bonds are limited obligations of the City payable, as to principal of, interest on, and redemption premiums, if any, solely from the proceeds of Net Special Tax received from the levy of the Special Tax on Taxable Property (including any prepayments thereof and proceeds from the sale of property collected pursuant to the foreclosure provisions of the Fiscal Agent Agreement for the delinquency of the Special Tax) and amounts in certain funds and accounts established in the Fiscal Agent Agreement. Neither the full faith and credit nor the general taxing power of the City is pledged for the payment of the interest on, principal of and redemption premiums, if any, on the

Series 2019 Bonds. The Series 2019 Bonds are not secured by a legal or equitable pledge, charge, lien or encumbrance, upon any property of the City, or upon any of its income or receipts except the amounts that are, under the Fiscal Agent Agreement and the Law, set aside for the payment of the Series 2019 Bonds. Neither the members of the City Council of the City nor any persons executing the Series 2019 Bonds are liable personally on the Series 2019 Bonds by reason of their issuance.

Although the Special Tax constitutes a lien on property subject to taxation in the District, it does not constitute a personal indebtedness of the owners of such property. There is no assurance that the owners will be financially able to pay the annual Special Tax or that they will pay such tax even if financially able to do so. The risk of nonpayment by property owners is more fully described in “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS—Collection of the Special Tax.”

Special Tax Authorization

General. Pursuant to the Law, on June 22, 2004 the City Council adopted a resolution establishing the District and calling a special election to authorize the issuance of bonds and the levy of the Special Tax. At an election held pursuant to the Law, the landowners who were the qualified electors of the District authorized (by more than the requisite two-thirds vote) the issuance of bonded indebtedness in an amount not to exceed \$112,500,000 and approved the Rate, Method of Apportionment, and Manner of Collection of Special Tax (the “Special Tax Formula”) to pay the principal of, and interest on, and redemption premium on, if any, the authorized bonded indebtedness. The Special Tax is levied through Fiscal Year 2049-50 according to the Special Tax Formula as set forth in APPENDIX B—“RATE, METHOD OF APPORTIONMENT, AND MANNER OF COLLECTION OF SPECIAL TAX.” The City Council annually establishes tax rates to levy and apportion the Special Tax against Taxable Property within the District.

City Covenant to Levy. Pursuant to the Fiscal Agent Agreement, so long as any Bonds are outstanding, the City is required annually to levy the Special Tax, subject to the maximum tax rates approved by the landowner voters, against all Taxable Property in the District and to make provision for the collection of the Special Tax in amounts that, will be sufficient to pay the principal of and interest on the Bonds when due, to pay the annual expenses of administering the District, to cure delinquencies in the payment of debt service on the Bonds that have occurred or are expected to occur in the current Fiscal Year, and to replenish the Bond Reserve Fund to an amount equal to the Bond Reserve Requirement.

In the opinion of Bond Counsel, the Special Tax is excepted from the tax rate limitation of California Constitution Article XIII A pursuant to Section 4 thereof as a “special tax” authorized by two-thirds vote of the qualified electors as set forth in the Law. Consequently, the City has the power and is obligated to cause the levy and collection of the Special Tax in an amount determined according to the Special Tax Formula, which the City Council and the eligible landowner electors within the District have approved.

The Law prohibits the City Council from adopting a resolution to initiate proceedings to reduce the rate of the Special Tax or terminate the levy of the Special Tax unless the City Council determines that the reduction or termination of the Special Tax “would not interfere with the timely retirement” of outstanding Bonds secured by the Special Tax. The City has covenanted in the Fiscal Agent Agreement that it will not consent to or conduct proceedings to reduce the Special Tax that may be levied in the District below an amount in any Fiscal Year equal to 110% of the aggregate debt service due and payable with respect to the Bonds in such Bond Year ending on September 1 immediately following such Fiscal Year, *plus* 100% of the City’s reasonable estimate of Administrative Expenses for the Fiscal Year.

Manner of Collection. The Special Tax is collected in the same manner and at the same time as *ad valorem* property taxes are collected by the County and, except as described below under the caption

“–Delinquent Payments of Special Tax; Covenant to Foreclose,” is subject to the same penalties and the same procedures, sale and lien priority in the case of delinquency as is provided for *ad valorem* property taxes. Taxes are levied by the County for each Fiscal Year on taxable real property that is situated in the County as of the preceding January 1. For collection purposes, property is classified either as “secured” or “unsecured” and is listed accordingly on separate parts of the assessment roll. The “secured roll” is that part of the assessment roll containing State-assessed public utilities property and real property having a tax lien that is sufficient, in the opinion of the County Assessor, to secure payment of the taxes. Other property is assessed and collected on the “unsecured roll.”

Property taxes on the secured roll are due in two installments, on November 1 and February 1 of each Fiscal Year. If unpaid, such taxes become delinquent on December 10 and April 10, respectively, and a 10% penalty attaches to any delinquent payment. Property on the secured roll with respect to which taxes are delinquent become tax defaulted on June 30 of the Fiscal Year; such property may thereafter be redeemed by payment of a penalty of 1.5% per month to the date of redemption, together with the defaulted taxes, the delinquency penalty, costs, and a redemption fee. If taxes are unpaid for a period of five years or more, the property is subject to auction sale by the County, however, under certain circumstances property may be foreclosed sooner. See “–Delinquent Payments of Special Tax; Covenant to Foreclose.”

Property taxes on the unsecured roll are due as of the lien date and become delinquent, if unpaid, on August 31. A 10% penalty attaches to delinquent unsecured taxes. If unsecured taxes are unpaid at 5:00 p.m. on October 31, an additional penalty of 1.5% attaches to them on the first day of each month until paid. The County has four ways of collecting delinquent unsecured property taxes: (i) bringing a civil action against the taxpayer; (ii) filing a certificate in the office of the County Clerk specifying certain facts in order to obtain a lien on certain property of the taxpayer; (iii) filing a certificate of delinquency for record in the County Clerk and County Recorder’s office in order to obtain a lien on certain property of the taxpayer; and (iv) seizing and selling personal property, improvements, or possessory interests belonging or assessed to the assessee.

Teeter Plan

In 1949, the California Legislature enacted an alternative method for the distribution of secured *ad valorem* property taxes to local agencies. This method, commonly known as the Teeter Plan, is set forth in Sections 4701-4717 of Revenue and Taxation Code of the State of California. The Yolo County Board of Supervisors (the “Board of Supervisors”) approved implementation of the Teeter Plan in November 1993, both as to general and special taxes entered and collected on the secured tax roll.

Generally, the Teeter Plan provides for a tax distribution procedure by which secured roll taxes, special taxes and assessments are distributed to taxing agencies within a county included in the Teeter Plan on the basis of the tax levy, rather than on the basis of actual tax collections. A county then receives all future delinquent tax payments, penalties and interest, and a complex tax redemption distribution system for all taxing agencies is avoided. In connection with the Teeter Plan, a county can advance to the participating taxing agencies an amount equal to 95% of the total then-prior years’ delinquent secured property taxes, 100% of the total then-prior years’ delinquent secured special taxes, including the associated penalties and interest, and 100% of the then-current year’s secured roll levy.

The Teeter Plan remains in effect unless the Board of Supervisors orders discontinuance. The County policy provides that it may order discontinuance of the Teeter Plan as to special taxes for the next year if the rate of delinquency for a taxing district exceeds 3% in any Fiscal Year. Unless and until the Board of Supervisors orders discontinuance of the Teeter Plan with respect to the District, the City is credited with 100% of the scheduled Special Tax payments without regard to actual amounts collected. The City can give no assurance, however, that the Teeter Plan will be continued in future years.

If any tax or assessment which was distributed to a Teeter Plan participant is subsequently changed by correction, cancellation or refund, a *pro rata* adjustment for the amount of the change is made on the records of the treasurer of the County and the County Auditor. Such an adjustment would be an offset to future distributions of tax revenues to the District.

So long as the County maintains its policy of collecting taxes pursuant to said procedures and the City meets the Teeter Plan requirements, the City will receive 100% of the annual installments levied without regard to actual collections in the City. No assurance can be given that the County will continue to include special taxes levied within community facilities districts in the Teeter Plan, and the County could decide to discontinue the inclusion of such special taxes in the Teeter Plan at any time, or to discontinue the Teeter Plan in its entirety.

Special Tax is not a Personal Obligation

Although the Special Tax constitutes a lien on Taxable Property, it does not constitute a personal indebtedness of the property owners of such property. There is no assurance that the property owners will be financially able to pay the Special Tax or that they will pay such tax even if financially able to do so. The risk of the property owners not paying the Special Tax is more fully described in “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS—Payment of the Special Tax is Not a Personal Obligation of the Property Owner.”

Special Tax Formula

Capitalized terms used under this heading and not otherwise defined shall have the same meanings as set forth in the Special Tax Formula. See APPENDIX B—“RATE, METHOD OF APPORTIONMENT, AND MANNER OF COLLECTION OF SPECIAL TAX.”

General. The Special Tax Formula provides that the Special Tax levy each Fiscal Year is calculated by first determining the “Special Tax Requirement” for such Fiscal Year. The “Special Tax Requirement” is defined in the Special Tax Formula as the amount necessary in any Fiscal Year to (i) pay the principal of and interest on the Bonds that is due in the calendar year that begins in such Fiscal Year; (ii) create and/or replenish the reserve fund for the Bonds; (iii) cure any delinquencies in the payment of the principal of or interest on Bonds that have occurred in the prior Fiscal Year or, based on existing delinquencies in the payment of the Special Tax, are expected to occur in the Fiscal Year in which the Special Tax will be collected; (iv) pay Administrative Expenses (defined below); and (v) pay the costs of public improvements and public infrastructure authorized to be financed by the District. The amounts referred to in clauses (i) and (ii) of the preceding sentence may be reduced in any Fiscal Year by: (a) interest earnings on or surplus balances in funds and accounts for the Bonds to the extent that such earnings or balances are available to apply against debt service pursuant to the Fiscal Agent Agreement; (b) proceeds from the collection of penalties associated with delinquent Special Taxes; and (c) any other revenues available to pay debt service on the Bonds as determined by the Administrator.

“Administrative Expenses” means any or all of the following: fees and expenses of any Fiscal Agent or trustee (including any fees or expenses of its counsel) employed in connection with any Bonds, and the expenses of the City carrying out its duties with respect to the District and the Bonds, including, but not limited to, costs of levying and collecting the Special Tax, the fees and expenses of legal counsel, charges levied by the County Auditor’s Office, Tax Collector’s Office, and/or Treasurer’s Office, costs related to annexing property into the District, costs related to property owner inquiries regarding the Special Tax, amounts needed to pay rebate to the federal government with respect to the Bonds, costs associated with complying with any continuing disclosure requirements for the Bonds and the Special Tax, and all other costs and expenses of the City in any way related to the establishment or administration of the District.

Pursuant to the Special Tax Formula on or about July 1 of each year the Administrator will (i) categorize each parcel of Taxable Property within the District into one of three categories: (a) Developed Property, (b) Small Lot Tentative Map Property, or (c) Undeveloped Property; (ii) determine if parcels of Multi-Family Property are Affordable Multi-Family Property; and (iii) determine if there are parcels of Taxable Non-Residential Property. A Maximum Special Tax, calculated as more fully described below, will be assigned to each parcel of Taxable Property based on its existing zoning designation.

In any Fiscal Year, if it is determined that: (i) a parcel map for a portion of property in the District was recorded after January 1 of the prior Fiscal Year (or any other date after which the County Assessor will not incorporate the newly-created parcels into the then current tax roll), (ii) because of the date the parcel map was recorded, the County Assessor does not yet recognize the new Parcels created by the parcel map, and (iii) one or more of the newly-created Parcels meets the definition of Developed Property, the Administrator will calculate the Special Tax for the property affected by recordation of the parcel map by determining the Special Tax that applies separately to each newly-created parcel, and then applying the sum of the individual Special Taxes to the parcel that was subdivided by recordation of the parcel map. Similarly, if a portion of a parcel is included in an approved Small Lot Tentative Map while the remainder of such parcel is classified as Undeveloped Property, the Administrator will separately calculate the Special Tax that applies to the Small Lot Tentative Map Property and the Undeveloped Property within such parcel, and the Special Tax levied on such parcel shall be the sum of the two figures.

For purposes of the Special Tax Formula the following terms are defined as follows:

“Affordable Multi-Family Property” means a parcel of Multi-Family Property that is either deed-restricted to maintain the affordability of the residential units within the building or, in the City’s Sole discretion, otherwise qualifies as affordable housing.

“Developed Property” means, in any Fiscal Year, any parcel for which a building permit was issued prior to January 1 of the preceding Fiscal Year.

“Maximum Special Tax” means the maximum Special Tax, determined in accordance with the Special Tax Formula that can be levied in any Fiscal Year.

“Multi-Family Property” is defined in the Special Tax Formula to mean, in any Fiscal Year, any parcel of Developed Property for which a building permit was issued for construction of a residential structure with three or more residential units that share common walls, all of which are offered for rent to the general public.

“Small Lot Tentative Map” means a map that is made for the purpose of showing the design of a proposed subdivision, including Residential Lots that are expected within the subdivision, as well as the conditions pertaining thereto. A Small Lot Tentative Map is not based on a detailed survey of the property and is not recorded in the County Recorder’s Office to create legal lots.

“Small Lot Tentative Map Property” means, in any Fiscal Year, all Parcels which are included within a Small Lot Tentative Map that was approved by June 30 of the prior Fiscal year (including any such maps that have subsequently expired), and which have not yet become Developed Property.

“Taxable Non-Residential Property” means, in any Fiscal Year, any parcel of Developed Property that: (i) had a building permit issued prior to January 1 of the prior Fiscal Year for construction of a commercial or industrial building, and (ii) had, in prior Fiscal Years, been developed and taxed as residential property or designated for Residential Units or High-Density Acres in the Spring Lake Specific Plan Area. If a parcel that had been designated for Residential Units or High-Density Acres is subsequently

designated for non-residential development, the parcel will not become Taxable Non-Residential Property *if*, in the City's sole discretion, the Expected Units/Acres from that parcel were shifted to another parcel with no resulting decrease in the Expected Maximum Special Tax Revenues associated with those Expected Units/Acres.

Undeveloped Property" means in any Fiscal Year, any parcel of Taxable Property in the District that is not Developed Property or Small Lot Tentative Map Property.

Pursuant to the Special Tax Formula, once the Special Tax has been levied on a parcel of Developed Property, the Maximum Special Tax applicable to such parcel will not be reduced in future Fiscal Years regardless of changes in land use on such parcel. Notwithstanding the foregoing, the actual Special Tax levied on any parcel of Developed Property in any Fiscal Year may be less than the Maximum Special Tax if a lower Special Tax is calculated pursuant to the *First* step of Special Tax Formula. See "*Method of Apportionment*."

Maximum Special Tax

Original Parcels. The Special Tax Formula specifies the Maximum Special Tax that may be imposed upon property depending upon the Expected Spring Lake Specific Plan Land Use Designations for each parcel that existed at the time the District was formed or added to the District upon completion of annexation (each an "Original Parcel"). A Successor Parcel that is further subdivided is also considered an Original Parcel for purposes of determining the Special Tax.

Thereafter, the parcels and Expected Units/Acres within each Spring Lake Specific Plan Land Use Designation and the Maximum Special Tax assigned to each Original Parcel may be revised due to lot line adjustments, tentative map revisions, changes in Building Unit Allocations (a "BUA") assignments required for the development of single family residential units, rezonings, an additional BUA Release or Expected Unit/Acre transfer (as discussed in the Special Tax Formula) as long as such revisions do not reduce the Expected Maximum Special Tax Revenues available within the District. See also "THE DISTRICT-Building Unit Allocation Ordinance."

Pursuant to the Special Tax Formula, on each July 1, since July 1, 2005, the Maximum Special Tax for each parcel increases by 2% over the amount in effect for the prior Fiscal Year.

Successor Parcels. Upon submittal of a Final Map that will result in the subdivision of an Original Parcel, the Administrator will compare the land uses proposed for the parcel and, prior to approval of the Final Map, the Maximum Special Tax will be determined in accordance with the procedures set forth in the Special Tax Formula. A "Successor Parcel" is defined in the Special Tax Formula as any parcel created from an Original Parcel or another successor parcel by subdivision or lot line adjustment.

Method of Apportionment. Pursuant to the Special Tax Formula, the Special Tax is levied annually as follows:

First: The Special Tax is levied Proportionately (defined below) on each parcel of Developed Property within the District up to 100% of the Maximum Special Tax for such Fiscal Year determined pursuant to Special Tax Formula until the amount levied on Developed Property is equal to the Special Tax Requirement *prior* to applying any available Capitalized Interest.

Second: If additional revenue is needed, and after applying Capitalized Interest to the Special Tax Requirement, the Special Tax shall be levied Proportionately on each

parcel of Small Lot Tentative Map Property within the District up to 100% of the Maximum Special Tax for such Small Lot Tentative Map Property determined pursuant to the Special Tax Formula.

Third: If additional revenue is needed, the Special Tax shall be levied Proportionately on each parcel of Undeveloped Property within the District up to 100% of the Maximum Special Tax for such Undeveloped Property determined pursuant the Special Tax Formula.

“Proportionately” is defined in the Special Tax Formula to mean that the ratio of the actual Special Tax levied in a Fiscal Year to the Maximum Special Tax authorized to be levied in that Fiscal Year is equal for all Assessor’s Parcels within a class of property (Developed Property, Small Lot Tentative Map Property or Undeveloped Property).

Under no circumstances may the Special Tax on one Parcel be increased by more than 10% as a consequence of a delinquency or default in the payment of the Special Tax levied on another Parcel or Parcels.[†]

Except with respect to the levy of the Special Tax, neither the credit nor the taxing power of the City is pledged for the payment of the principal of the Series 2019 Bonds, the interest thereon or redemption premiums, if any, thereon, and no owner of the Series 2019 Bonds may compel the exercise of the general taxing power of the City or the forfeiture of any of its property. The Series 2019 Bonds are not a legal or equitable pledge, charge, lien or encumbrance, upon any property of the City, or upon any of its income, receipts or revenues, except the amounts that are, under the Fiscal Agent Agreement and the Law, set aside for the payment of the Series 2019 Bonds and interest thereon. Neither the members of the City Council of the City nor any persons executing the Series 2019 Bonds are liable personally on the Series 2019 Bonds by reason of their issuance.

Exemptions From the Special Tax. Pursuant to Section 53340 of the Law, the Special Tax Formula exempts properties that are (i) Public Property, except as otherwise provided in the Law or in the Special Tax Formula; (ii) parcels for which the owner has prepaid and satisfied the Special Tax obligation and had a Release of the Special Tax Lien recorded against such parcels; (iii) parcels developed with non-residential land uses if such parcels are not determined under the Special Tax Formula to be Taxable Non-Residential Property; (iv) Affordable Multi-Family Property; and (v) parcels that do not have development rights, as determined in the sole discretion of the City, and therefore are unable to develop until a BUA Release (defined herein). See “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS—Exempt Properties” and “THE DISTRICT—Building Unit Allocation Ordinance.”

[†] Pursuant to Resolution No. 6723, adopted by a majority of the City Council on September 20, 2016, and Resolution No. 4559, the City has interpreted this provision in the Special Tax Formula to limit the increase of the Special Tax that can be levied in any Fiscal Year on a Residential Unit to no more than 10% above the amount that would have been levied in that Fiscal Year if there had not been a delinquency or default consistent with Section 53321(d) of the Law.

Bond Reserve Fund

The Fiscal Agent Agreement established a Bond Reserve Fund to be held by the Fiscal Agent, and requires that the Bond Reserve Fund be maintained in the amount of the “Bond Reserve Requirement” which is defined to mean, as of any date of calculation, the least of: (a) Maximum Annual Debt Service as of such date, (b) 125% of average Annual Debt Service, and (c) 10% of the stated principal amount of the Outstanding Bonds (or, if a Series of Bonds is sold with more than a *de minimis* amount of original issue discount or premium, the issue price of such Series of Bonds (excluding pre-issuance accrued interest), as such terms are defined in the Code.

Upon the issuance of the Series 2019 Bonds the Bond Reserve Requirement will be \$_____. Proceeds from the issuance of the Series 2019 Bonds in the amount of \$_____ will be deposited into the Bond Reserve Fund to bring the aggregate amount on deposit therein equal to the Bond Reserve Requirement for the Bonds.

All money in the Bond Reserve Fund will be used and withdrawn by the Fiscal Agent solely for the purpose of paying the interest on and principal of the Bonds in the event there is insufficient money in the Principal Fund or the Interest Fund available for this purpose, or in the event the Special Tax on a lot or parcel is prepaid; *provided*, that if as a result of any of the foregoing valuations it is determined that the amount of money in the Bond Reserve Fund exceeds the Bond Reserve Requirement, the Fiscal Agent will withdraw the amount of money representing such excess from such account and transfer such amount to the City for deposit in the Community Facilities Fund.

Deposit of Special Taxes; Flow of Funds

Upon receipt of Special Tax payments (other than Special Taxes representing prepaid Special Tax), the City will deduct annual Administrative Expenses in an amount not to exceed \$28,154 in Fiscal Year 2018-19, which amount increases by 2% (compounded) each Fiscal Year thereafter and deposit such amount in the Community Facilities Fund. The balance of the Special Taxes is required to be deposited into the Special Tax Fund held by the Fiscal Agent, which amounts are pledged to the payment of the Bonds.

Priority of Deposits. All money in the Special Tax Fund is required to be set aside by the Fiscal Agent in the following accounts in the following order of priority:

- First:* Interest Fund;
- Second:* Principal Fund; Sinking Accounts;
- Third:* Bond Reserve Fund; and
- Fourth:* Community Facilities Fund.

In addition, the Fiscal Agent Agreement establishes a Prepayment Fund and a Rebate Fund.

Interest Fund. At least one Business Day before each Interest Payment Date, the Fiscal Agent is required to transfer from the money in the Special Tax Fund and deposit into the Interest Fund an amount equal to the aggregate amount of interest becoming due and payable on all Outstanding Bonds on such Interest Payment Date (excluding any interest for which there are moneys deposited in the Interest Fund from the proceeds of a Series of Bonds or other source and reserved as capitalized interest to pay such interest on such Interest Payment Date). No deposit need be made into the Interest Fund if the amount contained therein is at least equal to the interest to become due and payable on such Interest Payment Date (but excluding any moneys on deposit therein from proceeds of the Series 2019 Bonds or other source and

reserved as capitalized interest to pay interest on any future Interest Payment Dates following such Interest Payment Date).

All amounts in the Interest Fund are required to be used and withdrawn by the Fiscal Agent solely for the purpose of paying interest on the Bonds as the same becomes due and payable, including accrued interest, on any Bonds purchased or redeemed prior to maturity pursuant to the Fiscal Agent Agreement.

Principal Fund; Sinking Accounts. At least one Business Day before each Principal Payment Date, the Fiscal Agent is required to transfer from amounts in the Special Tax Fund and deposit in the Principal Fund an amount equal to (i) the aggregate amount of principal becoming due and payable on the Outstanding Serial Bonds of all Series on such Principal Payment Date plus (ii) the aggregate amount of the Mandatory Sinking Account Payments to be paid on such Principal Payment Date into the respective Sinking Accounts for the Term Bonds of all Series for which Sinking Accounts have been created; *provided that*, if the City certifies to the Fiscal Agent that any principal payments are to be refunded on or prior to their respective due dates, no amounts need be set aside towards such principal to be so refunded.

No deposit need be made into the Principal Fund so long as there are: (i) moneys sufficient to pay the principal of all Serial Bonds then Outstanding and maturing by their terms within the next 12 months *plus* (ii) the aggregate of all Mandatory Sinking Account Payments required to be made in such 12-month period, but less any amounts deposited into the Principal Fund during such 12-month period and theretofore paid from the Principal Fund to redeem or purchase Term Bonds during such 12-month period, and less any principal payments that the City certifies to the Fiscal Agent will be refunded on or prior to their respective due dates.

All amounts in the Principal Fund are required to be used and withdrawn by the Fiscal Agent solely for the purpose of paying the principal of the Bonds when due and payable, except that all amounts in the Sinking Accounts are required to be used and withdrawn by the Fiscal Agent solely to purchase or redeem or pay at maturity Term Bonds, as provided in the Fiscal Agent Agreement.

Any amounts remaining in a Sinking Account after all of the Term Bonds for which such account was established are no longer Outstanding will be withdrawn by the Fiscal Agent and transferred to the City for deposit into the Community Facilities Fund.

Bond Reserve Fund. On or before each Interest Payment Date, the Fiscal Agent is required to transfer from the money remaining in the Special Tax Fund after required transfers to the Interest Fund and the Principal Fund have been made and deposit into the Bond Reserve Fund such amount as is required to restore the Bond Reserve Fund to an amount equal to the Bond Reserve Requirement. The portion of the Bond Reserve Fund held in cash or Investment Securities may be used (together with any other moneys available therefor) for the payment or redemption of all Bonds then Outstanding; such portion may also be used for the redemption of or the payment of the final principal and interest payment of a Series of Bonds if, following such redemption or payment, the amounts in the Bond Reserve Fund (including the amounts that may be obtained from letters of credit, insurance policies, and surety bonds on deposit therein) will equal the Bond Reserve Requirement.

All amounts in the Bond Reserve Fund (including all amounts that may be obtained from letters of credit, insurance policies, and surety bonds on deposit in the Bond Reserve Fund) are required to be used and withdrawn by the Fiscal Agent, solely for the purpose of making up any deficiency in the Interest Fund or the Principal Fund.

The City may withdraw and apply to the redemption of Bonds the amount by which the balance in the Bond Reserve Fund would have otherwise exceeded the Bond Reserve Requirement upon such

redemption. Any amounts in the Bond Reserve Fund in excess of the Bond Reserve Requirement is required to be transferred by the Fiscal Agent to the City on October 1 of each year for deposit into the Community Facilities Fund.

Community Facilities Fund. All money remaining in the Special Tax Fund on September 5 of each year after making the foregoing deposits, is required to be withdrawn by the Fiscal Agent from the Special Tax Fund and transferred to the City for deposit into the City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Community Facilities Fund which fund is held by the City. All money in the Community Facilities Fund is required to be used by the City solely for the payment of costs of the Facilities, Administrative Expenses, debt service on subordinate obligations or otherwise for the benefit of the District in accordance with the Law.

Prepayment Fund. All moneys representing prepaid Special Taxes that are deposited by the City with the Fiscal Agent are required to be deposited in the Prepayment Fund. Except as provided below, all amounts deposited in the Prepayment Fund are required to be used and withdrawn by the Fiscal Agent solely for the purpose of redeeming Bonds as specified in the Fiscal Agent Agreement; *provided that*, at any time prior to giving such notice of redemption, the Fiscal Agent is required to, upon receipt of a Request of the City, apply such amounts to the purchase of Bonds at public or private sale, as and when and at such prices (including brokerage and other charges, but excluding accrued interest, which is payable from the Interest Fund) as is directed by the City, except that the purchase price (exclusive of such accrued interest) may not exceed the Redemption Price then applicable to such Bonds. All Term Bonds purchased or redeemed from the Prepayment Fund will be allocated to Mandatory Sinking Account Payments applicable to such Series and maturity of Term Bonds as may be specified in a Request of the City. Following a redemption of Bonds from the Prepayment Fund, the Fiscal Agent will transfer any remaining amount that represented the amount deposited that exceeded an even multiple of \$5,000 into the Special Tax Fund.

Rebate Fund. The Fiscal Agent is required to transfer amounts to and disburse moneys from the Rebate Fund as directed by the City to make rebate payments to the United States of America in accordance with the Internal Revenue Code of 1986, as amended.

Delinquent Payments of Special Tax; Covenant to Foreclose

General. The Fiscal Agent Agreement provides that the Special Tax is to be collected in the same manner as ordinary *ad valorem* property taxes are collected and, except as provided in the special covenant for foreclosure described below and in the Law, are subject to the same penalties and the same procedure, sale, and lien priority in case of delinquency as is provided for *ad valorem* property taxes.

Pursuant to Section 53356.1 of the Law, in the event of any delinquency in the payment of the Special Tax, the City may order the institution of a Superior Court action to foreclose the lien therefor within specified time limits. In such an action, the real property subject to the unpaid amount may be sold at a judicial foreclosure sale. Such judicial foreclosure action is not mandated by the Law.

Covenant to Foreclose. The City covenants in the Fiscal Agent Agreement that if at any time the payment of Special Tax is no longer subject to the Teeter Plan, the City will review the public records of the County of Yolo relating to the collection of the Special Tax on or before August 1 of each year in order to determine the amount of the Special Tax collected in the prior Fiscal Year. If the City determines on the basis of such review that any single parcel of Taxable Property is delinquent by more than \$2,500, the City will send a notice of delinquency and a demand for immediate payment to the owner no later than August 15 of such year. If the City determines on the basis of such review that the amount of Special Tax received with respect to all Taxable Property in the District is less than 95% of the amount of the Special Tax levied in such Fiscal Year then, by September 5 of such year, the City will send a notice of delinquency and a

demand for immediate payment to each such owner of a parcel with respect to which the Special Tax is delinquent. If the delinquency with respect to a parcel is not cured by November 1, the City will institute, prosecute and pursue foreclosure proceedings to judgment and sale in order to enforce the lien of the delinquent installments of the Special Tax against such parcel.

In the event that sales or foreclosures of property are necessary, there could be a delay in payments to Owners of the Series 2019 Bonds (if the Bond Reserve Fund has been depleted) pending such sales or the prosecution of such foreclosure proceedings and receipt by the City of the proceeds of sale. However, within the limits of the Special Tax Formula, the City may adjust the Special Tax levied on Taxable Property in the District, subject to the limitation on the Maximum Special Tax, and provided that the increase of the Special Tax levied in any Fiscal Year on a Residential Unit for which an occupancy permit for private residential use has been issued is limited to no more than 10% above the amount that would have been levied in such Fiscal Year if there had not been a delinquency or default, to provide an amount required to pay interest on and principal of the Series 2019 Bonds, and the amount, if any, necessary to replenish the Bond Reserve Fund to an amount equal to the Bond Reserve Requirement for the Bonds and to pay all current Administrative Expenses for the District and pay for all current services for the District. There is, however, no assurance that the total amount of the Special Tax that could be levied and collected against Taxable Property in the District will be at all times sufficient to pay the amounts required to be paid by the Fiscal Agent Agreement, even if the Special Tax is levied at the Maximum Special Tax rates. See “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS–Maximum Special Tax.”

Priority of Lien. The Act specifies that the Special Tax will have the same lien priority as *ad valorem* property taxes in the case of delinquency but does not further specify the priority relationship, if any, between the Special Tax and other special taxes and *ad valorem* taxes on a taxed parcel. See “THE DISTRICT–General; Location; and Description” and “–Direct and Overlapping Bonded Indebtedness,” and “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS–Parity Taxes and Special Assessments.”

If foreclosure proceedings were ever instituted, any holder of a mortgage or deed of trust on the affected property could, but would not be required to, advance the amount of the delinquent Special Tax payment to protect its security interest.

Sufficiency of Foreclosure Sale Proceeds. No assurance can be given that the real property subject to sale or foreclosure will be sold, or if sold, that the proceeds of sale will be sufficient to pay any delinquent installments of the Special Tax. The Law does not require the City to purchase or otherwise acquire any lot or parcel of property to be sold if there is no other purchaser at such sale. The Law and the Fiscal Agent Agreement do specify that the Special Tax will have the same lien priority as for *ad valorem* property taxes in the case of delinquency. Section 53356.6 of the Law requires that property sold pursuant to foreclosure under the Law be sold for not less than the amount of judgment in the foreclosure action, plus post judgment interest and authorized costs, unless the consent of the owners of 75% of the Outstanding Bonds is obtained.

Limited Obligation; No Required Advances from Available Surplus Funds

The Series 2019 Bonds are limited obligation special tax bonds under the Law. Notwithstanding any other provision of the Fiscal Agent Agreement, the City is not obligated to advance available surplus funds from the City treasury to cure any deficiency in the Principal Fund, the Interest Fund or the Bond Reserve Fund.

Additional Bonds

Pursuant to the Fiscal Agent Agreement, the City may from time to time issue additional bonds (“Additional Bonds”) secured by the Special Tax for the purpose of providing funds to finance or refinance the costs of any Facilities (or to reimburse the City for the payment of such costs), including payment of costs incidental to or connected with the Facilities, or for the repayment of funds advanced to or for the District. The conditions for issuance of such Additional Bonds are set forth in APPENDIX E–“SUMMARY OF CERTAIN PROVISIONS OF THE FISCAL AGENT AGREEMENT–Additional Bonds.” These conditions include, but are not limited to, the requirements that:

(i) No Event of Default (as defined in the Fiscal Agent Agreement) has occurred and is continuing.

(ii) The balance in the Bond Reserve Fund is required to be increased, if necessary, to an amount at least equal to the Bond Reserve Requirement with respect to all Bonds to be considered Outstanding upon the issuance of such Series of Bonds.

(iii) The aggregate principal amount of Bonds issued under the Fiscal Agent Agreement (excluding any refunding bonds) secured by the Special Tax does not exceed \$112,500,000 and does not exceed any other limitation imposed by law or by any Supplemental Fiscal Agent Agreement.

(iv) The aggregate value of all Taxable Property (based on either the assessed valuations thereof as contained in the most recent equalized assessment roll of County or an MAI appraisal showing a date of valuation not earlier than 90 days prior to the date of the adoption of the Supplemental Fiscal Agent Agreement), is equal to at least five times the sum of: (i) the aggregate principal amount of all Bonds to be Outstanding after the issuance of such additional Series of Bonds, plus (ii) the aggregate principal amount of all outstanding special assessment bonds that are payable from special assessments levied on the Taxable Property, plus (iii) the proportion of the aggregate principal amount of all outstanding bonds issued under the Law (other than the Bonds) that are payable from special taxes to be levied on the Taxable Property.

(v) The amount of the Net Special Taxes from Taxable Property that may be collected in each Fiscal Year following issuance of the additional Series of Bonds by application of the Special Tax Formula is required to be no less than (i) 110% of the aggregate of Annual Debt Service due and payable with respect to all Bonds to be Outstanding in the Bond Year that begins in the corresponding Fiscal Year plus (ii) 100% of the aggregate amount of principal and interest becoming due and payable in such Bond Year on all other debt obligations that are payable out of the Net Special Taxes.

(vi) The principal payments of such additional Series of Bonds are due on September 1 in each year in which principal is to be paid and, if the interest on such Series of Bonds is to be paid semiannually, such interest payments are due on March 1 and September 1 in each year, as appropriate.

Pursuant to the Fiscal Agent Agreement, the City may issue an additional Series of Bonds to refund any Bonds Outstanding without complying with the Value-to-Lien Ratio Aggregate or Debt Service Ratio, requirements for the issuance of Additional Bonds if the Annual Debt Service on all Bonds Outstanding will not increase in any Bond Year after such refunding as a result of such refunding.

Following issuance of the Series 2019 Bonds, there will be \$_____ principal amount of unissued authorization remaining pursuant to Resolution No. 4559.

Subordinate Obligations

Pursuant to the Fiscal Agent Agreement, the City may at any time issue obligations that are junior and subordinate to the payment of the principal, premium, interest, and reserve fund requirements for the Bonds and which subordinated obligations are payable as to principal, premium, interest, and reserve fund requirements, if any, only out of the Net Special Taxes that are on deposit in the Community Facilities Fund.

DEBT SERVICE REQUIREMENTS

Debt Service Schedule

The annual debt service schedule for the Bonds is set forth in Table 4 on the following page:

* Preliminary, subject to change.

Table 4
Debt Service Schedule

Period Ending (September 1)	Series 2013 Bonds	Series 2016 Bonds	Series 2019 Bonds			Aggregate Total
			<u>Principal</u>	<u>Interest</u>	<u>Total</u>	
2019	\$2,129,900.00	\$1,120,368.75	\$			
2020	2,127,600.00	1,122,668.75				
2021	2,128,320.00	1,119,818.75				
2022	2,121,840.00	1,126,968.75				
2023	2,118,380.00	1,128,818.75				
2024	2,112,720.00	1,130,518.75				
2025	2,114,860.00	1,132,068.75				
2026	2,119,360.00	1,123,468.75				
2027	2,121,000.00	1,125,018.75				
2028	2,114,780.00	1,131,418.75				
2029	2,115,920.00	1,127,518.75				
2030	2,118,980.00	1,123,456.25				
2031	2,108,740.00	1,129,231.25				
2032	2,115,640.00	1,124,506.25				
2033	2,103,800.00	1,134,606.25				
2034	2,108,880.00	1,129,181.25				
2035	—	3,253,562.50				
2036	—	3,250,731.25				
2037	—	3,250,000.00				
2038	—	3,247,000.00				
2039	—	3,250,200.00				
2040	—	3,244,200.00				
2041	—	3,239,200.00				
2042	—	3,245,000.00				
2043	—	2,231,000.00				
2044	—	1,232,800.00				
2045	—	551,200.00				
TOTAL	\$33,880,720.00	\$48,024,531.25	\$	____,____,____*		

* Preliminary, subject to change.

Sources. Piper Jaffray & Co. and Del Rio Advisors, LLC.

Projected Debt Service Coverage

Table 5 sets forth the estimated debt service coverage on the Bonds for Fiscal Year 2018-19 based upon the revenues derived from the net Maximum Special Tax and assuming the current status of development. The actual Fiscal Year 2018-19 net Maximum Special Tax may vary from the estimates presented below. The annual levy of the Special Tax is calculated to be an annual amount equal to the Special Tax Requirement. The debt service coverage shown in Table 5 is based on the net Maximum Special Tax. See also “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS—Special Tax Formula” and “—Deposit of Special Taxes; Flow of Funds” and “THE DISTRICT—Status of Development.”

The actual amount of the Special Tax that could be levied and collected against the Taxable Property during Fiscal Year 2018-19 or any future year will depend upon a number of factors, including, without limitation, the land use categories then in effect, changes in development status, the tax rates imposed pursuant to the Special Tax Formula, the 2% annual increases in the Maximum Special Tax pursuant to the Special Tax Formula, the issuance of any parity or subordinate debt, and the level of delinquent installments of the Special Tax. See “CERTAIN RISKS TO BONDHOLDERS AND INVESTMENT CONSIDERATIONS.” The collection history on secured property taxes in the City over the past five years is shown in Table 10—“Historical Delinquency Information.” This delinquency history may not be indicative of delinquency rates in the District currently or that may be experienced in the future.

Table 5 City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Estimated Fiscal Year 2018-19 Coverage Based on Net Maximum Special Taxes					
Fiscal Year	Net Maximum Special Tax Revenue⁽¹⁾⁽²⁾		Total Debt Service⁽⁴⁾	Debt Service Coverage⁽⁶⁾	
	Developed Property⁽³⁾	All Taxable Property		From Developed Property⁽⁵⁾	From All Taxable Property⁽⁵⁾
2018-19	\$3,594,858	\$6,034,831	\$3,426,536	104.91%	176.12%
(1) Net of \$28,154 in Special Tax revenues committed to administrative expenses for Fiscal Year 2018-19. The amount committed to administrative expenses increases by 2% per Fiscal Year. Excludes maximum Special Tax revenue from 22.39 acres of Multi-Family Property that may become exempt from the special tax in the future. (2) Pursuant to Section 53321(d) of the Government Code, the Special Tax levied against any assessor's parcel for which an occupancy permit for private residential use has been issued shall not be increased as a consequence of delinquency or default by the owner of any other assessor's parcel within the District by more than 10% above the amount that would have been levied in the Fiscal Year had there never been any such delinquencies or defaults. (3) Includes properties for which the City issued building permits prior to December 31, 2017. Does not include parcels which have prepaid their Special Tax obligation prior to July 15, 2018. (4) Equal to the sum of the estimated debt service due in 2019 for the Outstanding Parity Bonds and the Series 2019 Bonds, less the capitalized interest that will be applied to pay debt service in that year. (5) Estimated coverage for Fiscal Year 2018-19 is based on the Special Tax levy for Fiscal Year 2018-19. No Special Tax was levied on Tentative Map Property for Fiscal Year 2018-19. Future years may vary based on changes in development, future bond issuances, and the limitations discussed in footnote (2). Sources: Goodwin Consulting Group, Inc. and Piper Jaffray & Co. for the Total Debt Service.					

CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS

An investment in the Series 2019 Bonds involves substantial risk. The following is a discussion of certain risk factors and investment considerations that should be considered, in addition to other matters set forth herein, in evaluating the investment quality of the Series 2019 Bonds. This discussion does not purport to be comprehensive or definitive and the order of presentation is not intended to reflect the relative importance of such information. The occurrence of one or more of the events discussed herein could adversely affect the ability or willingness of owners of property in the District to pay the Special Tax when due. Such failures to pay the Special Tax could result in a rapid depletion of the Bond Reserve Fund and/or a default in payments of the principal of, and interest on, the Series 2019 Bonds. In addition, the occurrence of one or more of the events discussed herein could adversely affect the value of the property in the District.

Not A General Obligation of the City

The Series 2019 Bonds are **not** general obligations of the City but are limited obligations of the City payable solely from proceeds of the Special Tax (after payment of a portion of the City's cost of administering the District) and proceeds of the Series 2019 Bonds, including amounts in the Bond Reserve Fund and investment income on funds held pursuant to the Fiscal Agent Agreement (other than as necessary to be rebated to the United States of America pursuant thereto). Any tax for the payment of the Series 2019 Bonds shall be limited to the Special Tax to be collected within the District.

Land Values

The value of Taxable Property within the District is a critical factor in determining the investment quality of the Series 2019 Bonds. If a property owner defaults in the payment of the Special Tax, the City's only remedy is to foreclose on the delinquent property in an attempt to obtain funds with which to pay the delinquent Special Tax. Land values could be adversely affected by economic factors beyond the City's control, such as relocation of employers out of the area, stricter land use regulations, the absence of water or other essential services, or destruction of property caused by, among other eventualities, earthquake, flood or other natural disaster, or by environmental pollution or contamination.

Land Development. Land values are influenced by the level of development in the area in many respects. First, partially developed land is generally less valuable than developed land and provides less security to the owners of the Series 2019 Bonds should it be necessary for the City to foreclose on undeveloped property due to the nonpayment of the Special Tax. Moreover, failure to complete development on a timely basis could adversely affect the land values of those parcels that have been completed. Lower land values would result in less security for the payment of principal of and interest on the Series 2019 Bonds and lower proceeds from any foreclosure sale necessitated by delinquencies in the payment of the Special Tax. No assurance can be given that the unimproved property within the District will be developed, and in assessing the investment quality of the Series 2019 Bonds, prospective purchasers should evaluate the risks of non-completion.

For Fiscal Year 2018-19, Taxable Property within the District was comprised of 1,900 parcels of Developed Property of which 1,641 parcels had improvement value and 30 parcels (entitled for 30 lots) did not have improvement value, and 229 parcels of Small Lot Tentative Map Property. See also "THE DISTRICT."

Risks of Real Estate Investment Generally. Continuing development of land within the District may be adversely affected by changes in general or local economic conditions, fluctuations in the real estate market, increased construction costs, including those that will require virtually all new residences and major home renovations under three-stories to incorporate advanced efficiency measures and rooftop solar

commencing January 1, 2020, development, financing and marketing capabilities of individual property owners, water shortages and other similar factors. Development in the District may also be affected by development in surrounding areas, which may compete with the District. In addition, land development operations are subject to comprehensive federal, State and local regulations, including environmental, land use, zoning and building requirements. See also “THE DISTRICT–Building Unit Allocation Ordinance.” There can be no assurance that proposed land development operations within the District will not be adversely affected by future government policies, including, but not limited to, governmental policies to restrict or control development, or future growth control initiatives. There can be no assurance that land development operations within the District will not be adversely affected by these risks. The City has not evaluated development risks. Since these are largely business risks of the type that property owners customarily evaluate individually, and inasmuch as changes in land ownership may well mean changes in the evaluation with respect to any particular parcel, the City is issuing the Series 2019 Bonds without regard to any such evaluation. Thus, the issuance of the Series 2019 Bonds by the City in no way implies that the City has evaluated these risks or the reasonableness of these risks even though such risks may be serious and may ultimately halt or slow the progress of land development and forestall the realization of the value of Taxable Property.

Legal Requirements. Other events that may affect the value of a parcel of Taxable Property include changes in the Law or application of the law. Such changes may include, without limitation, local growth control initiatives, local utility connection moratoriums and local application of statewide tax and governmental spending limitation measures.

Hazardous Substances. One of the most serious risks in terms of the potential reduction in the value of a parcel of Taxable Property is a claim with regard to a hazardous substance. In general, the owners and operators of a parcel may be required by law to remedy conditions of the parcel relating to releases or threatened releases of hazardous substances. The federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, sometimes referred to as “CERCLA” or the “Superfund Act,” is the most well-known and widely applicable of these laws, but California laws with regard to hazardous substances are also stringent and similar. Under many of these laws, the owner (or operator) is obligated to remedy a hazardous substance condition of property whether or not the owner (or operator) has anything to do with creating or handling the hazardous substance. The effect, therefore, should any of the parcels in the District be affected by a hazardous substance is to reduce the marketability and value of the parcel by the costs of remedying the condition, because the purchaser, upon becoming owner, will become obligated to remedy the condition just as is the seller. Further, such liabilities may arise not simply from the existence of a hazardous substance but from the method of handling it. All of these possibilities could significantly affect the financial and legal liability of a property owner to develop the affected parcel or other parcels, as well as the value of the property that is realizable upon a delinquency and foreclosure.

The valuation of property in the District does not take into account the possible reduction in marketability and value of any of the parcels by reason of the possible liability of the owner (or operator) for the remedy of a hazardous substance condition of the parcel. While the City is not aware that the owner (or operator) of any of parcels has such a current liability with respect to any of the parcels, it is possible that such liabilities do currently exist and that the City is not aware of them.

Further, it is possible that liabilities may arise in the future with respect to any of the parcels resulting from the existence, currently, on the parcel of a substance presently classified as hazardous but which has not been released or the release of which is not presently threatened, or may arise in the future resulting from the existence, currently, on the parcel of a substance not presently classified as hazardous but which may in the future be so classified. Further, such liabilities may arise not simply from the existence of a hazardous substance but from the method of handling it. All of these possibilities could significantly affect the value of a parcel within the District that is realizable upon a delinquency.

Natural Disasters. The value of the Taxable Property in the future can be adversely affected by a variety of natural occurrences, particularly those that may affect infrastructure and other public improvements and private improvements on the Taxable Property and the continued habitability and enjoyment of such private improvements. Such occurrences include, without limitation, earthquakes, earth movements, landslides, floods, droughts, wildfires, and tornadoes. One or more of such natural disasters could occur and could result in damage to improvements of varying seriousness. The damage may entail significant repair or replacement costs and that repair or replacement may never occur either because of the cost, or because repair or replacement will not facilitate habitability or other use, or because other considerations preclude such repair or replacement. Under any of these circumstances, the value of the Taxable Property may well depreciate or disappear. See also “*–Risk of Flooding*” and “*–Seismic Risk*.”

Risk of Flooding. In accordance with the National Flood Insurance Reform Act requiring, among other things, that the Federal Emergency Management Agency (“FEMA”) assess its flood hazard map inventory at least once every five years. Portions of the County are designated as being located within zones that correspond to the boundaries of a 100-year floodplain. A 100-year floodplain is an area expected to be inundated during a flood event of the magnitude for which there is a 1% (or 1-in-100) probability of occurrence in any year.

In the aftermath of Hurricane Katrina in August 2005, the Corps of Engineers delivered letters to agencies nationwide withdrawing certification of the flood hazard maps. As a result, FEMA implemented a Flood Map Modernization effort to update existing flood insurance rate maps (“FIRMs”), policies, regulations and procedures. In particular, FEMA placed a high priority on reviewing, identifying and certifying levees and levee systems nationwide to verify whether such levees and levee systems provide adequate flood protection in areas currently designated as within a 100-year floodplain. To assure that levees shown on modernized FIRMs still provide that level of protection, FEMA is requiring that each levee in the country be inspected and accredited.

Following the release by FEMA of a preliminary FIRM on December 19, 2008 that significantly expanded the area of high-risk flood zones within the County, including designating approximately 1/3 of the northern part of the City within a 100-year floodplain with shallow sheet flow (*i.e.* an area in which flooding is expected to be less than two feet and subside within 24 hours), the City submitted a Letter of Map Revision (a “LOMR”) to remove between 2,400 to 3,400 homes from the 100-year floodplain based on new hydraulic two dimensional mapping. As a result, final FIRMs were completed and became effective May 16, 2016, indicating that the District is *not* within a 100-year floodplain and is *not* subject to the 200-year urban level flood protection requirements and land use restrictions under the Central Valley Flood Protection Act of 2008 (the “CVFP Act”).

The CVFP Act among other things, created the Central Valley Flood Protection Board (the “CVFP Board”), required preparation and adoption of a Central Valley Flood Protection Plan (the “CVFPP”) to provide a comprehensive framework for system-wide management and flood risk reduction planning by 2012; established 200-year protection as the minimum urban level of flood protection in the Central Valley; set deadlines for cities and counties to amend their general plans and zoning ordinances to conform to the CVFPP; restricts approval of development agreements and subdivision maps in flood hazard zones, once the general plan and zoning ordinance amendments have been adopted; and mandates that Central Valley counties develop flood emergency plans within 24 months of adoption of the CVFPP and other laws enacted thereafter to strengthen the linkage between local and use planning decision and flood management practices. The CVFPP is required to be updated every five years beginning in 2017.

The U.S. Army Corps of Engineers, Sacramento District (the “USACE”) in cooperation with the City and the CVFP Board initiated a cost-shared feasibility study of the Lower Cache Creek in 1999, a draft feasibility report was released in 2003, and rejected. At the request of the City and the CVFP Board, the

feasibility study was resumed in 2011 and the USACE conducted periodic inspections of the levee system surrounding the City beginning in December 2012. Work on a feasibility study was “paused” in 2015 at the request of the City and CVFP. During the “pause” the City and the Department of Water Resources continued with work to develop community support and to demonstrate that adverse impacts on the sediment trapping efficiency and mercury total maximum daily load in the Cache Creek Settling Basin would be addressed. On October 23, 2018 the “America’s Water Infrastructure Act of 2018 (the “Water Resources Department Act”) was signed into law authorizing, among other projects, expedited completion of the Lower Cache Creek feasibility study. Upon completion of specific project milestones by December 31, 2018, including an environmental assessment and supporting engineering work, and drafting a Tentative Selected Plan (a “TSP”) report, a TSP conference with USACE, the Department of Water Resources, and the City is expected to be held in early 2019. The feasibility study is then expected to be completed 18 months following the TSP conference.

To date, the majority of the TSP project milestone work has been completed, including the environmental assessment, and engineering and hydrology/hydraulic work, and a project alternative has been agreed upon that satisfies federal funding requirements. The District is not currently subject to any land use restrictions under the CVFP Act and the City does not expect that the delay in the Lower Cache Creek feasibility study will have a material adverse effect on development within the District. ***[Subject to Review by the City]***

Seismic Risk. There are several active geological faults in the State that have potential to cause serious earthquakes that could result in damage within the District, and to the City, infrastructure, buildings, roads, bridges, and other property.

The fault zones nearest the City exhibiting historic displacement (*i.e.* activity within the last 200 years) are the Concord-Green Valley (approximately 27 miles west), March Creek-Greenville (approximately 40 miles west), and Hayward fault zones (approximately 54 miles southwest). Other active faults within 70 miles of the City are the Dunnigan Hills (approximately 10 miles northwest), West Napa (approximately 36 miles southwest), Healdsburg-Rodgers (approximately 57 miles southwest), and San Andreas (approximately 66 miles west).

The City is located in a zone 3 seismic area. Seismic zones aid in identifying and characterizing certain geological conditions and the risk of seismic damage at a particular location, and are used in establishing building codes to minimize seismic damage. The five seismic zones are: zone 0 (no measurable damage), zone 1 (minor damage), zone 2 (moderate damage), zone 3 (major damage) and zone 4 (major damage and greater proximity than zone 3 to certain major fault systems). Although according to the California Geological Survey of Alquist-Priolo Earthquake Fault Zones, the City is not located within an existing Earthquake Fault Zone (formerly, a “Special Studies Zone”), it is possible that new geological faults could be discovered in the area and that an earthquake occurring on such faults could result in damage of varying degrees of seriousness to property and infrastructure in the City, including the District.

In the event of a severe seismic event in or around the City, there could be substantial damage to the District resulting in a reduction of Special Taxes. Such reduction of Special Taxes could have an adverse effect on the City’s ability to make timely payments of debt service on the Series 2019 Bonds. All Development within the District was designed to meet the applicable building code standards for seismic zone 3.

Liquefaction. During an earthquake, shaking of granular loose soil saturated with water can lead to liquefaction, a condition in which sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid. As a result, this can cause structures to lose foundation-bearing capacity. The City is characterized by shallow groundwater, with standing water

generally encountered between zero to three feet below the surface. Additionally, the City is underlain by stratified layers of silt, silty clays, and isolated lenses of gravel and/or sand. Therefore, portions of the City may be prone to liquefaction resulting from ground shaking.

Climate Change

In March 2009, the California Climate Change Center released a draft paper, for informational purposes only, which was funded by the California Energy Commission, the California Environmental Protection Agency, the Metropolitan Transportation Commission, the California Department of Transportation and the California Ocean Protection Council. The title of the paper is *“The Impacts of Sea-Level Rise on the California Coast.”* The paper posits that increases in sea level will be a significant consequence of climate change over the next century.

In 2005, the Governor signed Executive Order S-3-05 establishing long-term targets to reduce greenhouse gas (“GHG”) emissions to 80% below 1990 levels by 2050. In 2006, Assembly Bill 32, the “Global Warming Solutions Act of 2006”) (“AB 32”) was enacted that requires a Statewide reduction in GHG emissions to 1990 levels by 2020, and in 2015, the Governor signed Executive Order B-30-15 establishing an interim GHG reduction target of 40% below 1990 levels by 2030. The State has encouraged local communities to reduce their GHG emissions by 15% from 2005 levels by 2020 in order to assist the State in meeting the emission reduction goals of AB 32.

In July 2014, the City adopted its 2020 Preliminary Climate Action Plan (a “CAP”) to establish strategies to reduce the City’s GHG emissions to a level 15% below its 2005 GHG emission levels by 2020, and develop tools for addressing GHG emissions of future development. In May 2017 the City adopted a final Climate Action Plan (the “2035 CAP”) that replaced the 2020 Preliminary CAP and is consistent with the GHG emissions reduction requirement established by the State. The 2035 CAP is an expanded version of the 2020 Preliminary CAP and was developed in conjunction with the 2035 update of the City’s General Plan.

Climate change concerns are leading to new laws and regulations at the federal, State and local levels. Research suggests that the State will experience hotter and drier conditions, reductions in winter snows and increases in winter rains, sea level rise, significant changes to the water cycle, increased occurrences of extreme and unpredictable weather events, and increased catastrophic wildfires and severity of flood events. The compound impacts of which will affect economic systems throughout the State, including within the City. The City is unable to predict the impact such laws and regulations, if adopted, and the effect climate change could have on the City and the collection of Special Tax. The effects, however, could be material.

Competing Development

The City has experienced modest growth over the past five years, primarily from single-family residential development activity. See APPENDIX A–“GENERAL AND ECONOMIC INFORMATION FOR THE CITY OF WOODLAND–Construction Activity.” Three homebuilders are currently active in the City. There is an inventory of completed residential lots in planned communities and there are 13 planned communities in various stages of development within 20 miles of the District, including in Sacramento, Winters, West Sacramento and Dixon. There are no other major single-family residential developments in the City which currently, or may in the near future, provide direct competition to development in the District.

Maximum Special Tax

Within the limits of the Special Tax Formula, the City may adjust the Special Tax on all Taxable Property in the District to provide an amount required to pay interest on, principal of, Sinking Fund

Payments for and redemption premiums, if any, on the Series 2019 Bonds, and the amount, if any, necessary to cure delinquencies, *provided*, that the Special Tax levied against any Residential Unit that has received an occupancy permit for private residential use in any Fiscal Year may not be increased by more than 10% above the amount that would have been levied in that Fiscal Year if there had not been any delinquency or default in payment of the Special Tax and replenish the Bond Reserve Fund to an amount equal to the Bond Reserve Requirement for the respective Bonds, to pay all current Expenses for the District. However, the amount of the Special Tax that may be levied against particular categories of property in the District is subject to the Maximum Special Tax applicable for that category. The Maximum Special Tax is designed to provide Special Tax revenues on an annual basis. There is no assurance that the Maximum Special Tax on the property in the District will be sufficient to pay the amounts required to be paid by the Fiscal Agent Agreement at all times. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS–Special Tax Authorization” and APPENDIX B–“RATE, METHOD OF APPORTIONMENT, AND MANNER OF COLLECTION OF SPECIAL TAX.”

Wildfires

In recent years, wildfires have caused extensive damage throughout the State. In some instances, entire neighborhoods have been destroyed. Several fires that occurred within the State in recent years damaged or destroyed property in areas that were not previously considered to be at risk from such events. Some commentators believe that climate change will lead to even more frequent and more damaging wildfires in the future. Property damage due to wildfire could result in a significant decrease in the market value of property in the District and in the ability or willingness of property owners to pay the Special Tax.

Prepayment of the Special Tax

Property owners within the District may, at any time, prepay their Special Tax obligation in accordance with the provisions of the Special Tax Formula. If such a prepayment is made, the Series 2019 Bonds will be subject to mandatory redemption prior to their stated maturity. See “THE SERIES 2019 BONDS–Redemption Provisions–*Mandatory Redemption for Special Tax Prepayments.*”

Since 2007, a total of 71 single family parcels have prepaid the Special Tax. To date, Bonds associated with those prepayments have been redeemed for [all] of those parcels. .

Insufficiency of the Special Tax

The principal source of payment of debt service on the Series 2019 Bonds is the proceeds of the annual levy and collection of the Special Tax. The annual levy of the Special Tax is subject to the maximum tax rates authorized. The levy cannot be made at a higher rate even if the failure to do so means that the estimated proceeds of the levy and collection of the Special Tax, together with other available funds, will not be sufficient to pay debt service on the Series 2019 Bonds. Other funds that might be available include funds derived from the payment of delinquent Special Taxes, funds derived from the tax sale of foreclosure and sale of parcels on which the Special Taxes levied are delinquent, and the Reserve Fund.

The Special Tax levied in any particular tax year on a parcel of Taxable Property is based upon the maximum rate and application of the Special Tax Formula. Application of the Special Tax Formula will, in turn, be dependent upon certain development factors with respect to each parcel of Taxable Property by comparison with similar development factors with respect to the other Taxable Property within the District. Thus, the following are some of the factors that might cause the levy of the Special Tax on any particular parcel of Taxable Property to vary from the Special Tax that might otherwise be expected:

- Reduction in the number of parcels of Taxable Property, for such reasons as acquisition of Taxable Property by a government and failure of the government to pay the Special Tax based upon a claim of exemption, thereby resulting in an increased tax burden on the remaining Taxable Property.
- Failure of the owners of Taxable Property to pay the Special Tax and delays in the collection of or inability to collect the Special Tax by tax sale or foreclosure and sale of the delinquent parcels, thereby resulting in an increased tax burden on the remaining parcels.

Collection of the Special Tax

In order for the City to pay debt service on the Series 2019 Bonds, it is necessary that the Special Tax levied against land in the District be paid in a timely manner. Should the Special Tax not be paid on time, the City has established the Bond Reserve Fund under the Fiscal Agent Agreement in the amount of the Bond Reserve Requirement to pay debt service on the Bonds.

The Fiscal Agent Agreement provides that the Special Tax is to be collected in the same manner as ordinary *ad valorem* property taxes are collected and, except as provided in the special covenant for foreclosure described below and in the Law, is to be subject to the same penalties and the same procedure, sale and lien priority in case of delinquency as is provided for *ad valorem* property taxes. Pursuant to these procedures, if taxes are unpaid for a period of five years or more, the property is subject to sale by the County.

Pursuant to the Law, in the event of any delinquency in the payment of the Special Tax, the City may order the institution of a Superior Court action to foreclose the lien therefor within specified time limits. In such an action, the real property subject to the unpaid amount may be sold at judicial foreclosure sale. Such judicial foreclosure action is not mandated by the Law. However, the City has covenanted that it will institute, prosecute and pursue foreclosure proceedings to judgment and sale as provided in the Law in order to enforce the lien of delinquent installments of the Special Tax as described in “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS–Delinquent Payments of Special Tax; Covenant to Foreclose.”

In the event that sales or foreclosures of property are necessary, there could be a delay in payments to Owners of the Series 2019 Bonds pending such sales or the prosecution of foreclosure proceedings and receipt by the City of the proceeds of sale if the Bond Reserve Fund is depleted.

The City may be unable to make full or timely payment of debt service on the Series 2019 Bonds if the County discontinues the Teeter Plan and the property owners in the District fail to pay installments of the Special Tax when due, if the Bond Reserve Fund is depleted, or if the City is unable to sell foreclosed parcels for amounts sufficient to cover the delinquent installments of the Special Tax. See also “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS–Teeter Plan.”

Exempt Properties

Certain properties are exempt from the Special Tax in accordance with the Special Tax Formula. In addition, the Law provides that properties or entities of the state, federal or local government are exempt from the Special Tax; provided, however, that property within the District acquired by a public entity through a negotiated transaction, or by gift or devise, that is not otherwise exempt from the Special Tax, will continue to be subject to the Special Tax. It is possible that property acquired by a public entity following a tax sale or foreclosure based upon failure to pay taxes could become exempt from the Special

Tax. In addition, the Law provides that if property subject to the Special Tax is acquired by a public entity through eminent domain proceedings, the obligation to pay the Special Tax with respect to that property, for outstanding Bonds only, is to be treated as if it were a special assessment. The constitutionality and operation of these provisions of the Law have not been tested. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS–Special Tax Authorization.”

In particular, insofar as the Law requires payment of the Special Tax by a federal entity acquiring property within the District, it may be unconstitutional. If for any reason property within the District becomes exempt from taxation by reason of ownership by a nontaxable entity such as the federal government or another public agency subject to the limitation of the maximum rates, the Special Tax may be reallocated to the remaining Taxable Properties within the District. This would result in the owners of such property paying a greater amount of the Special Tax and could have an adverse impact upon the timely payment of the Special Tax. Moreover, if a substantial portion of land within the District becomes exempt from the Special Tax because of public ownership, or otherwise, the maximum rate that could be levied upon the remaining acreage might not be sufficient to pay principal of and interest on the Series 2019 Bonds when due and a default would occur with respect to the payment of such principal and interest.

The Law further provides that no other properties or entities are exempt from the Special Tax unless the properties or entities are expressly exempted in a resolution of consideration to levy a new special tax or to alter the rate or method of apportionment of an existing special tax.

Payment of the Special Tax is Not a Personal Obligation of a Property Owner

An owner of Taxable Property is not personally obligated to pay the Special Tax. Rather, the Special Tax is an obligation only against the Taxable Property. If the value of the Taxable Property is not sufficient, taking into account other obligations also payable thereby to fully secure the Special Tax, the City has no recourse against the property owner.

Bankruptcy

General. The payment of the Special Tax and the ability of the City to foreclose the lien of a delinquent unpaid tax, as discussed in “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS,” may be limited by bankruptcy, insolvency or other laws generally affecting creditors’ rights or by the laws of the State of California relating to judicial foreclosure. In addition, the prosecution of a foreclosure action could be delayed due to crowded local court calendars or delays in the legal process. The various legal opinions to be delivered concurrently with the delivery of the Series 2019 Bonds (including Bond Counsel’s approving legal opinion) will be qualified as to the enforceability of the various legal instruments by bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors’ rights and by the application of equitable principles and by the exercise of judicial discretion in appropriate cases.

Although bankruptcy proceedings would not cause the lien of the Special Tax to become extinguished, bankruptcy of a property owner could result in a delay in prosecuting superior court foreclosure proceedings. The federal bankruptcy laws provide for an automatic stay of foreclosure and tax sale proceedings, thereby delaying such proceedings, perhaps for an extended period. Any such delays would increase the likelihood of a delay or default in payment of the principal of and interest on the Series 2019 Bonds and the possibility of delinquent tax installments not being paid in full.

To the extent that bankruptcy or similar proceedings were to involve a large property owner, the chances would increase that the Bond Reserve Fund could be fully depleted during any resulting delay in receiving payment of delinquent Special Taxes. As a result, sufficient monies would not be available in

the Bond Reserve Fund for transfer to the Interest Fund or Principal Fund to make up any shortfalls resulting from delinquent payments of the Special Tax and thereby to pay principal of and interest on the Series 2019 Bonds on a timely basis.

Glasply Marine Industries. In 1992, the United States Court of Appeals for the Ninth Circuit issued its opinion in a bankruptcy case entitled *In re Glasply Marine Industries*. In that case, the court held that *ad valorem* property taxes levied by Snohomish County in the State of Washington after the date that the property owner filed a petition for bankruptcy were not entitled to priority over a secured creditor with a prior lien on the property. Although the court upheld the priority of unpaid taxes imposed before the filing of the bankruptcy petition, unpaid taxes imposed after the filing of the bankruptcy petition were declared to be “administrative expenses” of the bankruptcy estate, payable after all secured creditors. As a result, the secured creditor was able to foreclose on the property and retain all the proceeds of the sale except the amount of the pre-petition taxes. (Because it lies within the court’s discretion, no assurance can be given that a court would declare the Special Taxes to be an “administrative expense.”)

According to the court’s ruling in *Glasply*, as administrative expenses, post-petition taxes would be paid, assuming that the debtor has sufficient assets to do so. In certain circumstances, payment of such administrative expenses may be allowed to be deferred. Once the property is transferred out of the bankruptcy estate (through foreclosure or otherwise), it would at that time become subject to current taxes.

Congress amended the Bankruptcy Code in 1994 to allow local governments to perfect their liens for *ad valorem* property taxes even after the filing of a bankruptcy petition, effectively overturning *Glasply*, but only as it applies to *ad valorem* property taxes. The Special Taxes, however, are not *ad valorem* taxes. Except to the extent reversed by the amended Bankruptcy Code, *Glasply* remains controlling precedent on bankruptcy courts in the State. No other case law exists with respect to how a bankruptcy court would treat the lien for Special Taxes levied after the filing of a petition in bankruptcy. If a court applied the logic of *Glasply*, a bankruptcy petition filing would prevent the lien for Special Taxes levied in subsequent fiscal years from attaching so long as the property was a part of the estate in bankruptcy. If the *Glasply* precedent were applied to the levy of the Special Taxes, the amount of Special Taxes received from parcels whose owners declare bankruptcy could be reduced.

Endangered Species

During recent years, there has been an increase in activity at the State of California and federal level related to the possible listing of certain plant and animal species found in California as endangered species. An increase in the number of endangered species is expected to curtail development in a number of areas. At present, the property in the District is not known to be inhabited by any plant or animal species listed as threatened or endangered under either the State of California or federal endangered species acts or which either the California Fish and Game Commission or the United States Fish and Wildlife Service has proposed for addition to the respective endangered species list. Notwithstanding this fact, new species are proposed to be added to the State of California and federal protected lists on a regular basis. Any action by the State or federal governments to protect species located on or adjacent to the property in the District could negatively affect the ability of any Property Owner to complete the development as planned. This, in turn, could reduce the likelihood of timely payment of the Special Tax and would likely reduce the value of the land estimated by the Appraiser and the potential revenues available at a foreclosure sale for delinquent installments of the Special Tax. See “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS—Land Values.”

Federal Government Interests in Property

The ability of the County to collect interest and penalties specified by State law and to foreclose the lien of a delinquent Special Tax payment, may be limited in certain respects with regard to properties in which the Internal Revenue Service, the Drug Enforcement Agency, the Federal Deposit Insurance Corporation (the “FDIC”) or other similar federal agencies has or obtains an interest.

Federal courts have held that, based on the supremacy clause of the United States Constitution, in the absence of Congressional intent to the contrary, a state or local agency cannot foreclose to collect delinquent taxes or assessments if foreclosure would impair the federal government interest.

The supremacy clause of the United States Constitution reads as follows: “This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the contrary notwithstanding.”

This means that, unless Congress has otherwise provided, if a federal governmental entity owns a parcel that is subject to the Special Tax within the District but does not pay taxes and assessments levied on the parcel (including the Special Tax), the applicable state and local governments cannot foreclose on the parcel to collect the delinquent taxes and assessments.

Moreover, unless Congress has otherwise provided, if the federal government has a mortgage interest in the parcel and the County wishes to foreclose on the parcel as a result of delinquency in the Special Tax, the property cannot be sold at a foreclosure sale unless it can be sold for an amount sufficient to pay delinquent taxes and assessments on a parity with the Special Tax and preserve the federal government’s mortgage interest. In *Rust v. Johnson* (9th Circuit, 1979) 597 F.2d 174, the United States Court of Appeal, Ninth Circuit held that the Federal National Mortgage Association (“FNMA”) is a federal instrumentality for purposes of this doctrine, and not a private entity, and that, as a result, an exercise of state power over a mortgage interest held by FNMA constitutes an exercise of state power over property of the United States.

The County has not undertaken to determine whether any federal governmental entity currently has, or is likely to acquire, any interest (including a mortgage interest) in any of the Taxable Property subject to the Special Tax within the District, and therefore expresses no view concerning the likelihood that the risks described above will materialize while the Series 2019 Bonds are outstanding.

FDIC. In the event that any financial institution making any loan which is secured by real property within the District is taken over by the FDIC, and prior thereto or thereafter the loan or loans go into default, resulting in ownership of the property by the FDIC, then the ability of the City to collect interest and penalties specified by State law and to foreclose the lien of delinquent unpaid Special Tax may be limited.

The FDIC’s policy statement regarding the payment of state and local real property taxes (the “Policy Statement”) provides that property owned by the FDIC is subject to state and local real property taxes only if those taxes are assessed according to the property’s value, and that the FDIC is immune from real property taxes assessed on any basis other than property value. According to the Policy Statement, the FDIC will pay its property tax obligations when they become due and payable and will pay claims for delinquent property taxes as promptly as is consistent with sound business practice and the orderly administration of the institution’s affairs, unless abandonment of the FDIC’s interest in the property is appropriate. The FDIC will pay claims for interest on delinquent property taxes owed at the rate provided under state law, to the extent the interest payment obligation is secured by a valid lien. The FDIC will not

pay any amounts in the nature of fines or penalties and will not pay nor recognize liens for such amounts. If any property taxes (including interest) on FDIC-owned property are secured by a valid lien (in effect before the property became owned by the FDIC), the FDIC will pay those claims. The Policy Statement further provides that no property of the FDIC is subject to levy, attachment, garnishment, foreclosure or sale without the FDIC's consent. In addition, the FDIC will not permit a lien or security interest held by the FDIC to be eliminated by foreclosure without the FDIC's consent.

The Policy Statement states that the FDIC generally will not pay non-*ad valorem* taxes, including special assessments, on property in which it has a fee interest unless the amount of tax is fixed at the time that the FDIC acquires its fee interest in the property, nor will it recognize the validity of any lien to the extent it purports to secure the payment of any such amounts. Special tax imposed under the Mello-Roos Act and a special tax formula which determines the special tax due each year are specifically identified in the Policy Statement as being imposed each year and therefore covered by the FDIC's federal immunity. The Ninth Circuit has issued a ruling on August 28, 2001 in which it determined that the FDIC, as a federal agency, is exempt from Mello-Roos special taxes.

The City is unable to predict what effect the application of the Policy Statement would have in the event of a delinquency in the payment of the Special Tax with respect to a parcel within the District in which the FDIC has or obtains an interest, although prohibiting the lien of the Special Tax to be foreclosed on at a judicial foreclosure sale would likely reduce the number of or eliminate the persons willing to purchase such a parcel at a foreclosure sale. Owners of the Series 2019 Bonds should assume that the City will be unable to foreclose on any parcel owned by the FDIC. Such an outcome would cause a draw on the Bond Reserve Fund and perhaps, ultimately, a default in payment of the Series 2019 Bonds. The City has not undertaken to determine whether the FDIC currently has, or is likely to acquire, any interest in any of the parcels, and therefore expresses no view concerning the likelihood that the risks described above will materialize while the Series 2019 Bonds are outstanding.

Proceedings to Reduce or Terminate the Special Tax

An initiative measure commonly referred to as the "Right to Vote on Taxes Act" ("Proposition 218") was approved by the voters of the State of California at the November 5, 1996 general election. Proposition 218 added Article XIII C and Article XIII D to the California Constitution. According to the "Title and Summary" of Proposition 218 prepared by the California Attorney General, Proposition 218 limits "the authority of local governments to impose taxes and property-related assessments, fees and charges." Provisions of Proposition 218 have been and will continue to be interpreted by the courts. Proposition 218 could potentially impact the collection of the Special Tax within the District as described below.

Among other things, Section 3 of Article XIII states that "... the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing any local tax, assessment, fee or charge." The Act provides for a procedure, which includes notice, hearing, protest and voting requirements to alter the rate and method of apportionment of an existing special tax. However, the Act prohibits a legislative body from adopting any resolution to reduce the rate of any special tax or terminate the levy of any special tax pledged to repay any debt incurred pursuant to the Act unless such legislative body determines that the reduction or termination of the special tax would not interfere with the timely retirement of that debt. On July 1, 1997, the Governor of the State signed a bill into law enacting Government Code Section 5854, which states that:

Section 3 of Article XIII C of the California Constitution, as adopted at the November 5, 1996, general election, shall not be construed to mean that any owner or beneficial owner of a municipal security, purchased before or after that date, assumes the

risk of, or in any way consents to, any action by initiative measure that constitutes an impairment of contractual rights protected by Section 10 of Article I of the United States Constitution.

Accordingly, although the matter is not free from doubt, it is likely that Proposition 218 has not conferred on the voters the power to repeal or reduce the Special Tax if such reduction would interfere with the timely retirement of the Series 2019 Bonds.

It may be possible, however, for voters or the City to reduce the Special Tax in a manner which does not interfere with the timely repayment of the Series 2019 Bonds, but which does reduce the maximum amount of the Special Tax that may be levied in any year below the existing levels. Therefore, no assurance can be given with respect to the levy of the Special Tax for Administrative Expenses. Furthermore, no assurance can be given with respect to the future levy of the Special Tax in amounts greater than the amount necessary for the timely retirement of the Series 2019 Bonds. Therefore, the City can give no assurance with respect to the levy of the Special Tax for Administrative Expenses. The City has covenanted in the Fiscal Agent Agreement that it will not initiate proceedings under the Act to reduce the maximum Special Tax rates to less than an amount, for any Fiscal Year, equal to 110% of aggregate of the debt service due on the Bonds in such Fiscal Year plus the amount reasonably necessary to pay the annual Administrative Expenses for such Fiscal Year. No assurance can be given as to the enforceability of the foregoing covenant.

The interpretation and application of Proposition 218 will ultimately be determined by the courts with respect to a number of the matters discussed above, and it is not possible at this time to predict with certainty the outcome of such determination or the timeliness of any remedy afforded by the courts.

Zoning and Land Use Decisions

The Special Tax is to be levied annually based upon the land use categories in effect for the property. Decisions made by the City Council, which has control over zoning and land use decisions for property in the City, will affect the prospective use of the property and, therefore, the tax base for the Special Tax.

Public and Private Improvements - Increased Debt

In the event that the cost of public and private improvements in the District is financed through borrowings, such borrowings will increase the public and private debt for which the land in the District serves as security. This increased debt could reduce the ability or desire of the property owners in the District to pay the annual Special Tax levied against their property. See "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS."

Water Supply

Development within the District is also dependent upon the availability of sufficient water supplies. Until June 2016, the City was one of only a very few cities in the State that relied entirely upon groundwater resources for its urban water supply. Faced with degrading groundwater supplies and increasingly strict State and federal regulations for drinking water and wastewater discharge, in 1996, the City and the City of Davis formed the Woodland-Davis Clean Water Agency to plan, finance, construct and operate a surface water project (collectively, the "Water Supply Project") to improve water quality and reliability. The Water Supply Project, which consists of: (i) the acquiring post-1914 appropriative water rights from a private party to divert up to 10,000 acre feet per year from the Sacramento River, which diversion will be reduced to 7,500 acre/feet per year in critically dry years; (ii) construction of a 30 million gallons per day (mgd)

regional water treatment facility, of which 18 mgd is allocated to the City; and (iii) construction of approximately 5.1 miles of raw water pipelines connecting the surface water intake to the regional water treatment plant, and separate pipelines delivering treated water to the City, the City of Davis and UC Davis, was substantially complete in May 2016, and commenced water deliveries in June 2016.

The estimated total water demand at buildout of all proposed development in the Spring Lake Specific Plan Area is approximately 3,733 acre-feet per year. The Spring Lake Specific Plan Area is serviced by the water system of the City, which includes water provided by the Water Supply Project.

In 2013, the City retained West Yost Associates to prepare an assessment of its water supply needs. In 2016, West Yost Associates also completed the update to the City of Woodland Urban Water Management Plan (the “UWMP”). The City has made major investments in water supply and storage capabilities including in the Water Supply Project. The water supply assessment and the update to the UWMP agree that upon completion of the Water Supply Project, the City is expected to have adequate water supplies to serve development under an updated General Plan to address long-term planning through 2035 (the “2035 General Plan Update”), including the Spring Lake Specific Plan.

Drought Effects

Background. During a five-year period ending in 2016, the State of California experienced “exceptional drought conditions” (the most severe drought classification) according to the U.S. Drought Monitor. In addition, eight of the last 10 years, had below average runoff, which resulted in chronic and significant shortages to municipal, industrial, agricultural, and wildlife refuge supplies, and historically low groundwater levels. As a result of those drought conditions, the Governor and the State Water Board issued Executive Orders, drought emergency regulations, and conservation standards to reduce potable urban water use.

State Requirements. On April 20, 2015, a State appeals court ruled in *Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano* 235 Cal.App.4th 1493 (4th Dist. 2015), that local water agencies cannot charge higher tiered rates to customers simply to encourage conservation. Instead, the court said that water agencies can only charge rates that reflect the proportional cost of service attributable to a given parcel. The court held that tiered rates that increase progressively in relation to usage can be consistent with Proposition 218 if the tiers correspond to the actual cost of providing water service at a given level of usage, and that Proposition 218 requires that water rates and other government fees be linked to the costs of providing the service and not to other factors such as a desire to encourage conservation. See also, “CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS—Article XIII C and Article XIII D of the California Constitution.”

In May 2016, the SWRCB adopted a Statewide water conservation approach that replaced the prior percentage reduction–based conservation standard with a “stress test” approach that mandates urban water suppliers act to ensure at least a three year supply of water to their customers under drought conditions. This new emergency regulation remains in effect through January 2017 and requires locally developed conservation standards based upon each agency’s specific circumstances.

On June 21, 2016, the City Council determined that the City’s water supply condition did not meet the definition of a supply shortage as described in its water shortage contingency plan and normal water supply conditions exist. The City Council adopted a resolution rescinding the Stage Two Water Warning and Stage One Water Alert and called for an ongoing voluntary community-wide 10% reduction in water use and restrictions of outdoor irrigation to three days per week between the hours of 6:00 pm and 10:00 pm, with exceptions for drip irrigation.

In April 2017, following unprecedented water conservation and record amounts of precipitation, the Governor lifted the drought emergency Executive Orders and rescinded the emergency proclamations for all counties in the State except Fresno, Kings, Tulare, and Tuolumne where emergency drinking water projects continue to help address diminished groundwater supplies. State drought emergency regulations requiring urban water supplies to adopt and adhere to certain conservation measures have been repealed. However, the Executive Order requiring permanent monthly water use reporting and banning wasteful water use practices, such as hosing of sidewalks, driveways, and other hardscapes, and strengthening local drought resilience plans remained in effect.

On May 31, 2018, the Governor signed into law two bills (Assembly Bill 1668 (2018) and Senate Bill 606 (2018) (together, the “Water Efficiency Legislation”) requiring the establishment of Statewide efficiency standards by 2022. The Water Efficiency Legislation is designed to assist the State better prepare for droughts and climate change by requiring urban water suppliers to, among other things, create water use objectives, establish water shortage contingency plans, and increase potable water reuse.

The City can give no assurance that persistent drought conditions will not have a material adverse effect on development within the District and the City.

Tax Cuts and Jobs Act

Recent changes enacted on December 22, 2017 by federal tax legislation (the Public Law No. 115-97, also referred to as the “Tax Cuts and Jobs Act of 2017 made significant changes to many aspects of the Code that could have an impact on future property development. For example, the Tax Cuts and Jobs Act reduced the amount of mortgage interest deduction to the first \$750,000 of a home loan on new purchases (existing loans are grandfathered in), increased the standard deduction, and put a limit of \$10,000 on deductions for state and local income tax, sales tax, and property tax expenses that individuals may deduct from their gross income for federal income tax purposes, all of which could increase the cost of home ownership within the District and could adversely affect the sale of homes by the Developer Property Owners.

In addition, the changes enacted by Tax Cuts and Jobs Act of 2017 have resulted in additional federal income or state tax being imposed on owners of tax-exempt state or local obligations, such as the Series 2019 Bonds and subjects interest on bonds that is otherwise excludable from gross income for federal income tax purposes, including interest on the Series 2019 Bonds, to a tax payable by Series 2019 Bond owners that are individuals, estates or trusts with adjusted gross income in excess of certain specified thresholds. See “–Impact of Legislative Proposals, Clarifications of the Code and Court Decisions on Tax Exemption.”

Neither the City nor the District is able to predict the effect that the Tax Cuts and Jobs Act may have on the cost of home ownership or the price of homes in the District, the rate at which homes in the District are sold to homebuyers by the Developer Property Owners, or the ability or willingness of homebuyers to pay the Special Tax or property taxes.

The appraised values in the Appraisal do not take into account any of potential impacts of the Tax Act on home values or home sales in the District.

Impact of Legislative Proposals, Clarifications of the Code and Court Decisions on Tax Exemption

Recent legislation, future legislative proposals, if enacted into law, clarification of the Code, or court decisions may cause interest on the Series 2019 Bonds to be subject, directly or indirectly, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent Owners

of the Series 2019 Bonds from realizing the full current benefit of the tax status of such interest. Such actions may also affect the market price for, liquidity of or marketability of, the Series 2019 Bonds. See “– Tax Cuts and Jobs Act.”

Prospective purchasers of the Series 2019 Bonds should consult their own tax advisors regarding any pending or proposed federal or state tax legislation, regulations or litigation as to which Bond Counsel expresses no opinion. As discussed under “TAX MATTERS,” interest on the Series 2019 Bonds could become includable in gross income for purposes of federal income taxation retroactive to the date the Series 2019 Bonds were issued as a result of future acts or omissions of the District in violation of its covenants in the Fiscal Agent Agreement. If such an event of taxability occurs, the Series 2019 Bonds are not subject to special redemption or acceleration and will remain outstanding until maturity or until redeemed under one of the other redemption provisions contained in the Fiscal Agent Agreement.

Depletion of Bond Reserve Fund

The Bond Reserve Fund is to be maintained at an amount equal to the Bond Reserve Requirement as defined in the Fiscal Agent Agreement. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2019 BONDS–Bond Reserve Fund.” The Bond Reserve Fund will be used to pay principal of and interest on the Series 2019 Bonds and Outstanding Parity Bonds (and any Additional Bonds, the principal of and interest on which is supported by amounts in the Bond Reserve Fund) if insufficient funds are available from the proceeds of the levy and collection of the Special Tax against property within the District. If the Bond Reserve Fund is depleted, it can be replenished from the proceeds of the levy and collection of the Special Tax that exceed the amounts to be paid to the owners of the 2019 Bonds and Outstanding Parity Bonds (and any Additional Bonds, the principal of and interest on which is supported by amounts in the Bond Reserve Fund) under the Fiscal Agent Agreement. However, because the Special Tax levy is limited to the annual Maximum Annual Special Tax rates, it is possible that no replenishment would be achieved if the Special Tax proceeds, together with other available funds, remain insufficient to pay all such amounts. Thus, it is possible that the Bond Reserve Fund will be depleted and not be replenished by the levy and collection of the Special Tax.

Disclosures to Future Purchasers

The willingness or ability of an owner of a parcel of Taxable Property to pay the Special Tax even if the value is sufficient may be affected by whether or not the owner was given due notice of the Special Tax authorization at the time the owner purchased the parcel, was informed of the amount of the Special Tax on the parcel should the Special Tax be levied at the maximum tax rate and the risk of such a levy and, at the time of such a levy, has the ability to pay it as well as pay other expenses and obligations. The City has caused a notice of the Special Tax to be recorded in the Office of the Recorder for the County against each parcel of Taxable Property. While title companies normally refer to such notices in title reports, there can be no guarantee that such reference will be made or, if made, that a prospective purchaser or lender will consider such Special Tax obligation in the purchase of a property within the District or lending of money thereon.

In 2004, the City recorded a notice of the lien of the Special Tax in the Office of the County Recorder of the County of Yolo. While title companies normally refer to such notices in title reports, there can be no guarantee that such reference will be made or, if made, that a prospective purchaser or lender will consider such Special Tax obligation in the purchase of a parcel of land, a home or a commercial or industrial facility in the District or the lending of money thereon. The Law requires the subdivider (or its agent or representative) of a subdivision to notify a prospective purchaser or long-term lessor of any lot, parcel, or unit subject to a Mello-Roos special tax of the existence and maximum amount of such special tax using a statutorily prescribed form. The California Civil Code requires that in the case of transfers other

than those covered by the above requirement, the seller must at least make a good faith effort to notify the prospective purchaser of the special tax lien in a format prescribed by statute. Failure by an owner of the property to comply with the above requirements, or failure by a purchaser or lessor to consider or understand the nature and existence of the Special Tax, could adversely affect the willingness and ability of the purchaser or lessor to pay the Special Tax when due.

Parity Taxes and Special Assessments

The ability or willingness of a property owner in the District to pay the Special Tax could be affected by the existence of other taxes and assessments imposed upon the property either currently existing or imposed in the future. The assessments and any penalties thereon constitute a lien against the lots and parcels of land on which they have been levied until they are paid. Such lien is on a parity with all special taxes and special assessments levied by other agencies and is co-equal to and independent of the lien for general property taxes and other special assessments regardless of when they are imposed upon the same property. The Special Tax has priority over all existing and future private liens imposed on the property. In addition, other public agencies whose boundaries overlap those of the District could, with or in some circumstances without the consent of the owners of the land in the District, impose additional taxes or assessment liens on the property in the District in order to finance public improvements to be located inside or outside of the District, and property owners may incur additional liens, including, but not limited to, liens for Property Assessed Clean Energy (PACE) improvements.

The City, however, has no control over the ability of other entities and districts to issue indebtedness secured by special taxes or assessments payable from all or a portion of the property in the District. In addition, the City is not prohibited itself from establishing assessment districts, community facilities districts or other districts that might impose assessments or taxes against property in the District. The imposition of additional liens on a parity with the assessments could reduce the ability or willingness of the owners of parcels in the District to pay the Special Tax and increases the possibility that foreclosure proceeds will not be adequate to pay the delinquent Special Tax or the principal of and interest on the Series 2019 Bonds when due. See “THE DISTRICT–Direct and Overlapping Bonded Indebtedness.”

Existing and Future Indebtedness

For Fiscal Year 2018-19 approximately 13% of the Taxable Parcels in the District, excluding Multi-Family sites that may become exempt in the future, had no improvement value. In order to develop any improvements on the property, the developers who ultimately build on such property may need to construct improvements over and above those described herein. If the costs of these additional improvements are financed from borrowings, such borrowings will increase the public and/or private debt for which the land in the District or other land or collateral owned by such developers is security, and such increased debt could reduce the ability or desire of the developers or future property owners to pay the Special Tax.

Limitations on Remedies; No Acceleration

Remedies available to Bondholders may be limited by a variety of factors and may be inadequate to assure the timely payment of principal of and interest on the Series 2019 Bonds, or to preserve the tax-exempt status of the Series 2019 Bonds. Bond Counsel has limited its opinion as to the enforceability of the Series 2019 Bonds and the Fiscal Agent Agreement to the extent that enforceability may be limited by bankruptcy, insolvency, or similar laws affecting generally the enforcement of creditors' rights. Additionally, the Series 2019 Bonds are not subject to acceleration in the event of the breach of any covenant or duty under the Fiscal Agent Agreement. Lack of remedies may entail risks of delay, limitation, or modification of Bondowner rights. Judicial remedies, such as foreclosure and enforcement of covenants, are subject to exercise of judicial discretion. A California court may not strictly apply certain remedies or

enforce certain covenants if it concludes that application or enforcement would be unreasonable under the circumstances and it may delay the application of such remedies and enforcement.

Secondary Markets and Prices

The Underwriter will not be obligated to repurchase any of the Series 2019 Bonds, and no representation is made concerning the existence of any secondary market for the Series 2019 Bonds. No assurance can be given that any secondary market will develop following the completion of the offering of the Series 2019 Bonds, and no assurance can be given that the initial offering prices for the Series 2019 Bonds will continue for any period of time.

Loss of Tax Exemption

As discussed under “TAX MATTERS,” interest on the Series 2019 Bonds could become includable in gross income for purposes of federal income taxation retroactive to the date of issuance, as a result of acts or omissions of the City subsequent to the issuance of the Series 2019 Bonds in violation of the City’s covenants with respect to the Series 2019 Bonds. The Fiscal Agent Agreement *does not* contain a special redemption provision triggered by the occurrence of an event of taxability. As a result, if interest on the Series 2019 Bonds were to become includable in gross income for purposes of the federal income tax, the Series 2019 Bonds would continue to remain outstanding until maturity or unless earlier redeemed pursuant to optional or mandatory redemption.

IRS Audit of Tax-Exempt Bond Issues

The Internal Revenue Service (the “IRS”) has initiated an expanded program for the auditing of tax-exempt bond issues, including both random and targeted audits. It is possible that the Series 2019 Bonds will be selected for audit by the IRS. It is also possible that the market value of such Series 2019 Bonds might be affected as a result of such an audit of such Series 2019 Bonds (or by an audit of similar bonds or securities).

No Credit Rating; No Credit Enhancement

No rating has been applied for or obtained with respect to the Series 2019 Bonds, and the City does not presently intend to apply for or obtain any such rating. If any Owner attempts to resell the Series 2019 Bonds, the absence of a rating could adversely affect the market price and marketability of the Series 2019 Bonds. Furthermore, no credit enhancement will be obtained for the Series 2019 Bonds and the City does not presently intend to obtain such enhancement in the future.

THE CITY

The City is located approximately 81 miles northeast of San Francisco and approximately 20 miles northwest of Sacramento at the intersection of Interstate 5 and State Route 113. The City has been the seat of government for the County since 1862 and is the industrial and agricultural center of the County. As of January 1, 2018, the State Department of Finance estimated the population of the City to be 60,426 (not seasonally adjusted) an increase of approximately 6.4% compared to the estimated population for January 1, 2017.

The District is located in the City of Woodland. **The Series 2019 Bonds are not general obligations of the City but, rather, are limited obligations of the City secured solely by the Special Tax to be paid by the owners of property in the District and funds held pursuant to the Fiscal Agent**

Agreement. Certain economic and demographic information regarding the City is contained in APPENDIX A–“GENERAL AND ECONOMIC INFORMATION FOR THE CITY OF WOODLAND.” This information concerning the City is presented solely as background information.

THE SPRING LAKE SPECIFIC PLAN AREA

General

Pursuant to the General Plan of the City, an approximately 1,748 acre area (the “Master Plan Area”) south of the existing City limits was identified as that in which future growth would occur. In December 2001, the City Council adopted a specific plan, as amended (the “Spring Lake Specific Plan”), for approximately 1,097 acres of the Master Plan Area (the “Spring Lake Specific Plan Area”) establishing specific development policies, land use designations and design standards for development of a planned residential community within the Spring Lake Specific Plan Area. The City expects that all land within the Spring Lake Specific Plan Area will be annexed into the District in the future.

The remainder of the Master Plan Area, encompassing approximately 651 acres, located adjacent to Highway 113 is referred to as the “Master Plan Remainder Area” (the “MPRA”), is expected to be developed pursuant to a separate plan in the future, but is *not* expected to be annexed into the District.

Spring Lake Specific Plan

Upon full build-out of the Spring Lake Specific Plan Area, it is expected that 4,171 dwelling units (comprised of 3,146 single-family units and 1,025 multi-family units), approximately seven acres of neighborhood commercial development, more than 280 acres of public and quasi-public land uses (located primarily in the northern and northeastern area of the District), approximately 34 acres of park land, and more than 100 acres designated as streets, greenbelts and drainage will be constructed. In accordance with the Spring Lake Specific Plan, build-out is projected to occur over a period of years through 2035 and is expected to increase the population of the City by approximately 19,300 people. See also “–Status of Development” and APPENDIX A–“GENERAL AND ECONOMIC INFORMATION FOR THE CITY OF WOODLAND–Population–Table A-1–City, County and State Population.”

The public and quasi-public land uses within the Spring Lake Specific Plan Area include the existing 121 acre Woodland Community College; approximately 75 acres owned by the Woodland Joint Unified School District comprising Pioneer High School approximately 50 acres; a site for a future middle school (approximately 20 acres); the County Sheriff-Coroner facilities, including the County jail, the animal shelter, and the Juvenile Detention Facility (approximately 39 acres); and the Woodland Christian School (approximately 26 acres).

In addition to the Spring Lake Specific Plan, development is also subject to several development plans, reports and agreements, including but not limited to, the Spring Lake Specific Plan Infrastructure Study Report that identified the major infrastructure necessary to fully build-out the District (including the expected annexation of the remaining area in the Spring Lake Specific Plan Area), the Spring Lake Capital Improvement Program that identified an aggregate of \$107.1 million in capital facilities (excluding parks) (collectively, the “Facilities”) to be funded by the District and the Parks, Recreation, and Community Services Master Plan, as amended. See also, “THE DISTRICT–Status of Development.”

Spring Lake Specific Plan Area Land Uses

The land in the Spring Lake Specific Plan Area is zoned for the development of approximately 598.9 acres of single-family residential homes, defined as densities of eight units or fewer per acre (*i.e.* zoning designations of R-3, R-4, R-5 and R-8); approximately 66.0 acres of multi-family residential defined as meaning densities of eight units or higher per acre (zoning designations R-15, R-20 and R-25); approximately seven acres of neighborhood commercial (zoning designation NC); approximately 34 acres of open space uses, including parks, open space, and greenbelts (zoning designation OS) and approximately 393.6 acres of public/quasi-public uses (defined as schools, City facilities, County uses, streets, etc.).

Facilities to be Completed

Facilities included in the Spring Lake Capital Improvement Program that remain to be constructed include offsite drainage improvements, a pump station and a force main to an outfall channel to mitigate downstream impacts from the Spring Lake Specific Plan and South Urban Growth Area, which is required under the California Environmental Quality Act (approximately \$6 million), installation of an off-site sewer connection construction of a section of County Road (CR) 25A, along the southern boundary of the Spring Lake Specific Plan Area (approximately \$1.8 million), widening a section of Pioneer Avenue (approximately \$4.3 million), construction of an additional six-acres to an existing park (approximately \$3.3 million) and of a four-acre park (approximately \$2 million), and purchase of the land associated with each of these parks, which is under contract (approximately \$5 million combined). Each of these Facilities is expected to be financed through the Spring Lake Infrastructure Fee program as additional development occurs within the Spring Lake Specific Plan Area. Except for the offsite drainage improvements, individual Developer Property Owners in the District have no infrastructure use restrictions that would impede completion of development. See also, “THE DISTRICT–Development Plan–*Financing Plan for Facilities.*”

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Map of Spring Lake Specific Plan Area and the District

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General; Location; and Description

There is no Undeveloped Property in the District as such term is defined in the Special Tax Formula.

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Zoning and Land Use Classifications

The land in the District is zoned for the development of approximately 383.5 acres of single-family residential residences, defined as densities of eight units or fewer per acre (*i.e.* zoning designations of R-3, R-4, R-5 and R-8); approximately 33.9 acres of multi-family residential defined as meaning densities of eight units or higher per acre (zoning designations R-15, R-20 and R-25); approximately seven acres of neighborhood commercial (zoning designation NC); approximately 30 acres of open space uses, including parks, open space, and greenbelts (zoning designation OS); and approximately 200 acres of public/quasi-public uses (defined as schools, a fire station, streets, etc.). Upon purchase of parks by the City such property will become “Public Property” under the Special Tax Formula and will then no longer be subject to the Special Tax.

Building Unit Allocation Ordinance

The General Plan land use policies and the Spring Lake Specific Plan limit the average annual City-wide development/growth rate to a maximum population of 65,000 by 2020. This growth rate restriction was designed to control the pace of the development within the District.

The City Council adopted Ordinance No. 1343 on April 16, 2002, as amended (the “BUA Ordinance”), requiring a staged release of the building permits for the aggregate 2,579 single-family market rate residences approved for development in the District (each a “BUA”), so that growth would occur in conformance with the General Plan. **BUAs are *not* required for the construction of low income or very low income single family residences, multi-family residences or commercial development.** The BUA Ordinance permits the City, in its sole discretion, to issue BUAs earlier or later than as described in the BUA Ordinance if parcels within the District have been zoned to accommodate more units than would otherwise be available under the BUA Ordinance.

The BUA Ordinance originally established three release dates for the BUAs, which dates could be changed in the sole discretion of the City. The first release of 1,242 BUAs occurred during Fiscal Years 2004 through 2006-07. On March 5, 2013, the BUA Ordinance was modified by the adoption of Ordinance No. 1548 to address the timing and method of allocation of BUAs in the second and third releases as a result of the slowing housing market. Currently, there is no restriction on the release of BUAs.

Building permits for construction within the District are issued by the City on a first-come-first-serve basis upon approval of a final map, compliance with conditions of the development agreement and other City requirements.

Pursuant to the Special Tax Formula, parcels without a BUA are not subject to the Special Tax and no “Undeveloped Property” as defined in the Special Tax Formula is currently being taxed. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2018 BONDS–Special Tax Formula.” As of the date of this Official Statement all property owned by the [five] Developer Property Owners have been issued BUAs.

Agreements with Developer Property Owners

Development Agreements. In addition to zoning requirements and the BUA Ordinance, all development within the District is subject to the terms and provisions of development agreements between the City and each Developer Property Owner (collectively, the “Development Agreements”) each of which was approved by the City Council. The Development Agreements grant to each Developer Property Owner and their assignees a vested right to proceed with the development of the property in the District in accordance with the terms and conditions of the Development Agreement and the Spring Lake Specific Plan, as each may be amended from time to time. Pursuant to the terms of each Development Agreement

and the provisions of Article 2.5 of Division 1 of Title 7 of the California Government Code (commencing with Section 65864), subject to the limited exceptions set forth in the following sentence, the Development Agreements remain enforceable by the parties during the respective specified terms, unless canceled or modified by the City. The term of each Development Agreement is 20 years, during which time the City will conduct an annual review to determine compliance with its provisions. The Development Agreements, which expire between 2023 and 2025, authorize the City to apply any subsequently adopted land use regulations and exactions not in conflict with the Spring Lake Specific Plan that are applied uniformly to development throughout the City or within a defined area of benefit that includes the property subject to such Development Agreement. The Development Agreements each contain a number of requirements including, but not limited to, provision of agricultural conservation easements, dedication of easements and rights-of-way, inclusionary housing, an Off-Site Affordable Housing Fee, funding for public transit, fire department operation and maintenance funding, payment of a County Fiscal Deficit Mitigation Fee, and public art.

Development Plan

Overview. The predominant land use in the District is for detached, single-family residential residences. It is expected that upon buildout of the District, including annexation of the remaining area in the Spring Lake Specific Plan Area, approximately 4,171 dwelling units will be constructed, of which 3,146 will be single-family units and 1,025 will be multi-family units.

Five distinct neighborhoods are planned for development within the District, with each designed to conform with nontraditional principles emphasizing short to medium block lengths (*i.e.* 400 to 600 feet), narrow-grid, tree lined streets, sidewalks separated from streets by landscaped medians and planters; functioning front porches, courtyards or porticos; and rear or detached garages.

Commercial uses are expected to be developed in the center of the District pursuant to a “town square” concept. In addition, an approximately four-acre central park, a fire station and a pedestrian plaza are planned for the town square area, an eight-acre park, and an approximately 30,000 square foot, transitional kindergarten through grade 6 elementary school located on a 10-acre site are planned for the District.

Financing Plan for Facilities. Financing for the Facilities comes from four principal sources: proceeds of Special Tax Bonds, Developer Property Owner contributions, the Spring Lake Infrastructure Fee (the “SLIF”) program, and the City’s Major Project Financing Plan Fee for projects that provide Citywide benefits.

The SLIF fee is charged on all residential development (including affordable housing) and commercial development in the Spring Lake Specific Plan Area, with a portion of the obligation expected to be satisfied through the issuance of Bonds. Developer Property Owners in the District receive credits for the value of money advanced to the City to pay for infrastructure, for the value of bond proceeds received as a result of liens on their property, or for construction of qualifying projects included on the Spring Lake Capital Improvement Program. The credits can be used to pay the SLIF that is due at the time building permits are pulled at the City.

Status of Development

Facilities. Approximately \$69.5 million of major infrastructure improvements identified in the Spring Lake Capital Improvement Program, consisting of major streets, above ground and underground utilities associated with those streets, bikeways, greenbelts, open space facilities, drainage channels, detention ponds, water wells, pump stations and parks that provide connectivity and/or benefit to the Spring

Lake Specific Plan Area (collectively, the “Backbone Infrastructure”) have been constructed by the Developer Property Owners and acquired by the City.

Approximately \$36 million in Facilities identified in the Spring Lake Capital Improvement Program, including approximately \$11 million currently under construction, remain to be constructed within the District. For a summary of the Facilities to be completed, see “–Facilities to be Completed.” Completion of these Facilities is *not* required to complete build-out of the residential development within the current boundaries of the District.

Residential Development. For the Fiscal Year 2018-19 tax roll, there are a total of 1,900 Taxable Parcels of which 1,671 parcels of Single Family Developed Property and 229 parcels are Small Lot Tentative Map Property in the District. More than 88% of the Single-Family Developed Property (representing _____ parcels) is owned by individual property owners. See also Table 11–“Top 10 Taxpayers, including Development Status.” There are currently residential communities being actively marketed in the District by two residential homebuilders. See “–Lennar Homes of California” and “–Taylor Morrison of California, Inc.” A summary of each Developer Property Owner and the status of development for each community as of October 31, 2018 is described below. *The following information has been obtained from each Developer Property Owner and other publically available sources and has not been independently verified by the City or the Underwriter.*

D.R. Horton.

General. D.R. Horton is Western Pacific Housing, Inc., a Delaware corporation (“D.R. Horton”). D.R. Horton is a wholly owned subsidiary of D.R. Horton, Inc., a Delaware corporation (“D.R. Horton, Inc.”), a public company whose common stock is traded on the New York Stock Exchange under the symbol “DHI.” Founded in 1978 and headquartered in Fort Worth, Texas, D.R. Horton, Inc. constructs and sells homes in 26 states and 80 metropolitan markets of the United States under the names of D.R. Horton, *America’s Builder*, Emerald Homes, Express Homes, Freedom Homes and Pacific Ridge Homes.

D.R. Horton, Inc. is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and in accordance therewith files reports, proxy statements and other information, including financial statements, with the Securities and Exchange Commission (“SEC”). Such filings, particularly, D.R. Horton, Inc.’s Annual Report on Form 10-K for the Fiscal Year ended September 30, 2018, as filed by D.R. Horton, Inc. with the SEC on November __, 2019, as filed by D.R. Horton, Inc. with the SEC on July 26, 2018, set forth certain data relative to the consolidated results of operations and financial position of D.R. Horton, Inc. and its subsidiaries, including D.R. Horton, as of such dates.

D.R. Horton, Inc./Forestar Merger. On October 5, 2017, D.R. Horton, Inc. announced the acquisition of approximately 75% of the then outstanding shares of Forestar Group, Inc. (NYSE: FOR) (“Forestar”). The transaction establishes a strategic relationship between Forestar and D.R. Horton, Inc. for the supply of developed lots, as an extension of D.R. Horton’s strategy of increasing its optioned land and lot position to enhance operational efficiency and returns.

The SEC maintains an Internet web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC, including D.R. Horton, Inc. The address of such Internet web site is www.sec.gov. In addition, the aforementioned material may also be inspected at the offices of the NYSE at 20 Broad Street, New York, NY 10005. All documents subsequently filed by D.R. Horton, Inc. pursuant to the requirements of the Exchange Act after the date of this Official Statement will be available for inspection in such manner as the SEC prescribes.

Copies of D.R. Horton, Inc.'s Annual Report and each of its other quarterly and current reports, including any amendments, are available from D.R. Horton, Inc.'s website at www.drhorton.com.

The foregoing Internet addresses and references to filings with the SEC are included for reference only, and the information on these Internet sites and on file with the SEC may be incomplete or inaccurate and has not been reviewed by the City, the District, or the Underwriter. Information on these websites is not a part of this Official Statement and is not incorporated by reference into this Official Statement. No representation is made in this Official Statement as to the accuracy or adequacy of the information contained on these internet sites. Neither D.R. Horton nor D.R. Horton, Inc. is obligated to advance funds for construction or development in the District or to pay ad valorem property taxes or the Special Tax and investors should not rely on the information and financial statements contained on such internet websites in evaluating whether to buy, hold, or sell the Series 2019 Bonds.

D.R. Horton plans to develop the "Adeline" community with 69 single-family detached homes. These detached homes will be constructed on lots that are typically sized 45 feet by 105 feet. This community is zoned R-8. The proposed product mix includes one single-story floor plan and four two-story floor plans, with each plan offering four architectural styles. The proposed homes within this community are expected to range in size from approximately 1,577 square feet to approximately 2,622 square feet, and be equipped with solar power. As of November 1, 2018, D.R. Horton had been issued twenty-seven building permits and commenced construction of two model homes and twenty-five production homes. An additional 10 building permits are expected to be issued in December 2018. The model homes opened to the public on November 3, 2018. As of November 30, 2018, base sales prices within the Adeline community ranged from approximately [\$425,990] to approximately [\$499,990]. Base sales prices are subject to change and exclude any lot premiums, and any selling concessions or price reductions currently being offered. Closings on the initial homes constructed in this community are expected to occur in January 2019, with closings on the last homes constructed expected to occur in February 2020.

As of November 30, 2018, ___ homes were under contract for sale to individual homebuyers. However, under contract may not result in closed escrow as sales contracts are subject to cancellation.

[NOTE: IF STILL APPLICABLE (GIVEN PERMITS HAVE ALREADY BEEN ISSUED), DESCRIBE SELLER'S OBLIGATION TO REPURCHASE ALL 69 LOTS IF CITY REFUSES TO ISSUE BUILDING PERMITS DUE TO AFFORDABLE HOUSING LITIGATION. REPURCHASE OBLIGATION TERMINATES SOMETIME IN OCTOBER 2018.] **[Status]**

No assurance can be given that home construction and sales will occur as described herein, or that the home construction and sales plans or base prices set forth above will not change after the date of this Official Statement. No representation is made as to the ability or willingness of D.R. Horton to complete its property development in the District as currently planned and as described in this Official Statement.

KB Home – Central California.

KB Home (NYSE: KBH) is one of the largest and most recognized homebuilding companies in the U.S. and has been building homes for 60 years, with more than 600,000 homes delivered since its founding. KB Home sells and builds a variety of new homes designed primarily for first-time, first move-up and active adult homebuyers, including attached and detached single-family residential homes, townhomes and condominiums. KB Home offers homes in development communities, at urban in-fill locations and as part of mixed-use projects. Homebuilding operations represent most of their business, accounting for 99.7% of total revenues in 2017. Their financial services operations, which accounted for the remaining 0.3% of total revenues in 2017, offers various insurance products to homebuyers in the markets where KB Home

builds homes and provides title services in certain of those markets. The financial services operations provide mortgage banking services, including residential consumer mortgage loan (“mortgage loan”) originations, to our homebuyers indirectly through KBHS Home Loans, LLC (“KBHS”), an unconsolidated joint venture formed with Stearns Lending, LLC (“Stearns”), which became operational in 2017. Unless the context indicates otherwise, the terms “we,” “our” and “us” used herein refer to KB Home, a Delaware corporation, and its predecessors and subsidiaries. Also, as used herein “home” is a single-family resident, whether it is single-family home or other type of residential property; “community” is a single development which new homes are constructed as part of an integrated plan; and “community count” is the number of communities KB Home has open for sales with at least five homes/lots left to sell.

KB Home is developing the “Oyang North” community consisting of 112 single-family homes. Sixty-five lots in this community are zoned R-5 and the remaining 52 lots are zoned R-8 and will be developed with detached single-story and two-story homes. There is one floor plan available for the single-story homes, five floor plans available for the two-story homes, and a total of 24 architectural styles. All of the homes, which will range in size from 1,880 square feet to 3,061 square feet, will be equipped with solar power, and are expected to be priced from \$462,900 to \$532,000. As of September 2018, the final map for Oyang North had been submitted to and approved by the City, construction of homes is expected to commence in October 2018, and open model homes are expected to open in November 2018.

Lennar Homes of California.

Lennar Homes of California, Inc. (“Lennar”) is a wholly-owned subsidiary of Lennar Corporation, a Delaware corporation (“Lennar Corporation”), with headquarters in Miami, Florida. Lennar Corporation is a diversified real estate company, publicly traded on the New York Stock Exchange under the symbol LEN. Lennar Corporation started as a Dade County, Florida homebuilder in 1954.

In February 2018, Lennar Corporation completed its merger with homebuilder CalAtlantic. The deal gave Lennar control of 240,000 home sites and 1,300 active communities in 49 markets across 21 states, and put it on track to become the nation’s largest homebuilder. The year 2018 marked the 21st year that Lennar Corporation has operated in the Sacramento area.

Lennar Corporation is subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith files reports, proxy statements and other information with the SEC. Such filings, particularly the Annual Report on Form 10-K and its most recent Quarterly Report on Form 10-Q, may be inspected and copied at the public reference facilities maintained by the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. Such files can also be accessed over the Internet at the SEC’s website at www.sec.gov.

Copies of such material can be obtained from the public reference section of the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. In addition, the aforementioned material may also be inspected at the office of the NYSE at 20 Broad Street, New York, New York 10005. Additionally, Lennar Corporation provides investor relations information on its website.

For further information on Lennar, see its Internet homepage located at www.lennar.com. The website address is given for reference and convenience only, and the information on the website may be incomplete or inaccurate and has not been reviewed by the City or the Underwriter. Nothing on this website is a part of this Official Statement or incorporated into this Official Statement by reference and no representation is made in this Official Statement as to the accuracy or adequacy of the information contained on the internet site.

Lennar is developing “The Grove at Spring Lake,” (formerly known as the Cal West parcel), “The Orchard at Spring Lake,” and “Oyang South” communities in the District.

The Grove at Spring Lake. This parcel is zoned R-8 and consists of 225 finished lots in four villages for the construction of detached single-story and two-story homes. Lennar is constructing homes in Villages 1 and 2, and a portion of Villages 3 and 4 called “The Grove at Spring Lake.” The Grove will consist of 144 home sites and an eight-acre neighborhood park. Lennar is offering six floor plans; one floor plan for the single story homes and five floor plans for the two-story homes ranging in size from 1,662 square feet to 3,033 square feet and priced from approximately \$463,990 to \$569,990. All homes will be equipped with solar power, and Lennar’s Home Automation package (technology that permits control of locks, lights, climate, and cameras from a computer, tablet, or smartphone) which was introduced during development of phase one and will continue through the build-out.

As of September 2018, 96 homes had been constructed, 85 had been sold, and 62 had closed escrow; two acres of neighborhood park land had been improved and opened to the public. [68] homes in Village 2 had been completed. Villages 3 and 4, consisting of 83 finished lots, are under contract to a merchant builder, with an expected closing date by the end of 2018. ***[Description of the zoning for the lots in Villages 3 and 4 – To Come]***

The Orchard at Spring Lake. This community will consist of 103 home sites. It is zoned R-4 and is being developed with detached single-story and two-story homes. Lennar is offering five floor plans with varying elevations: two single story floor plans and three two-story floor plans ranging in size from 1,995 square feet to 3,312 square feet and priced from approximately \$505,990 to \$632,900. All of the homes will be equipped with solar power and Lennar’s Home Automation package.

As of September 2018, 53 homes were under construction, 45 homes had been sold, of which 21 had closed escrow. Seven acres of the 10-acre Rick Gonzalez, Sr. Park have been improved and are open to the public. Spring Lake Elementary School, operated by the Woodland Joint Unified School District, is located immediately south of this park. This school is designed to accommodate 400 transitional kindergarten through grade 6 students offers STEAM (Science, Technology, Engineering, the Arts, and Mathematics) and project based learning programs opened August 22, 2018.

Oyang South. This community will consist of 250 detached single-family homes in three separate villages, each of which will be equipped with solar power and Lennar’s Home Automation package, and located less than one-quarter mile from the park and elementary school described in “–The Orchard at Spring Lake.” Each village will contain distinct product lines as summarized below:

Village 1 – Summerstone: This Village is expected to consist of single-story and two-story homes on 83 residential lots. There are three floor plans available for the single-story homes and two floor plans available for the two-story homes, with each floor plan offering four architectural styles. This community is zoned R-4 and the homes will be constructed on lots sized 60 feet by 105 feet. The homes will range in size from 1,945 square feet to 3,512 square feet and are expected to be priced from approximately \$500,000 to \$650,000.

Village 2 – Magnolia: This Village is expected to consist of single-story and two-story homes on 85 residential lots. There are three floor plans available for the single-story homes and one floor plan available for the two-story homes, with each floor plan offering

four architectural styles. This community is zoned R-4 and the homes will be constructed on lots sized 60 feet by 110 feet. The homes will range in size from 2,614 square feet to 3,023 square feet and are expected to be priced from approximately \$550,000 to \$700,000.

Village 3: This Village is expected to consist of single-story and two-story homes on 82 residential lots. There is one floor plan available for the single-story homes and four floor plans available for the two-story homes, with each floor plan offering four architectural styles. This community is zoned R-3 and the homes will be constructed on lots sized 70 feet by 110 feet. The homes will range in size from 2,737 square feet to 3,731 square feet and are expected to be priced from approximately \$600,000 to \$750,000.

As of September 2018, the site had been graded and development plans were approved by the City in August 2018. Site improvements have commenced and construction of model homes began in August 2018.

Recent Litigation Against Lennar Corporation. A lawsuit was filed in the state court of California against Lennar Corporation relating to Lennar Corporation and LandSource Communities Development, LLC, a Delaware limited liability company (“LandSource”), in which the California Public Employees’ Retirement System (“CalPers”) invested in 2007. LandSource filed for bankruptcy on June 8, 2008 (“LandSource Bankruptcy Matter”), and a plan for reorganization was approved by the bankruptcy court on July 20, 2009. (*In re: LandSource Communities Development LLC, et al*, Case No. 08-11111, United States Bankruptcy Court, District of Delaware.) The complaint, which is filed as a qui tam action by a newly created limited liability company, makes a number of claims related to Lennar Corporation’s actions regarding LandSource and the related bankruptcy and seeks injunctive relief and damages (including statutory and treble) relating to CalPers’ alleged \$970 million loss. Lennar Corporation has filed a petition to remove the complaint to federal court (*Citizens Against Corporate Crime v. Lennar Corporation* (9th Circuit, California Eastern District Court, Case No. 2:2018-cv-01269). Lennar Corporation has also filed a Motion to Reopen the Chapter 11 Bankruptcy Cases for the Limited Purpose of Enforcing the Injunction and Release in the Debtors’ Joint Chapter 11 Plan and Confirmation Order. Persons released in the LandSource Bankruptcy Matter include Lennar Corporation and Lennar Homes. Lennar Corporation contends that in addition to the complaint being barred by the release and injunction in the LandSource Bankruptcy Matter, the complaint is meritless and barred by applicable statutes of limitation and other defenses. Lennar Homes is not a party to the complaint. Lennar Homes believes that even if, in the unlikely event, the complaint is successful against Lennar Corporation, Lennar Homes will be able to complete the development and sale of its project within the District as described in this Official Statement and pay the Special Tax and *ad valorem* tax obligations on the property that it owns within the District prior to delinquency during Lennar Homes’ period of ownership.

Taylor Morrison of California, LLC.

Taylor Morrison of California, LLC, is a California limited liability company (“Taylor Morrison”). Taylor Morrison Services, Inc., a Delaware corporation qualified in California (“TMSI”), is the sole shareholder of the Developer. TMSI is controlled by Taylor Morrison Home Corporation, a Delaware corporation (“TMHC”), which is traded on the New York Stock Exchange as “TMHC.” TMHC’s principal executive offices are located in Scottsdale, Arizona. TMHC was created as a result of the July 2007 merger of two United Kingdom-based, publicly-listed homebuilders, Taylor Woodrow plc and George Wimpey plc, the predecessor entities of which commenced homebuilding operations in the United States in 1936. The subsequent integration of Taylor Woodrow, Inc. and Morrison Homes, Inc. in the U.S. formed TMHC and Monarch Corporation in Canada, respectively.

TMHC is subject to the informational requirements of the United States Securities Exchange Act of 1934, as amended (the “Exchange Act”) and in accordance therewith files reports, proxy statements, and other information with the Securities and Exchange Commission (“SEC”). The SEC maintains an Internet web site that contains reports, proxy and information statements, and other information regarding registrants that file electronically with the SEC, including TMHC. The address of such internet web site is “www.sec.gov”. All documents subsequently filed by TMHC pursuant to the requirements of the Exchange Act after the date of this Official Statement will be available for inspection in such manner as the SEC prescribes. Additional information on TMHC, including annual reports and related financial statements, can be found on the investors relations tab at the website “www.taylormorrison.com.” The foregoing internet addresses are included for reference only and the information on the respective internet sites is not a part of this Official Statement and is not incorporated by reference into this Official Statement. No representation is made in this Official Statement as to the accuracy or adequacy of the information contained on the aforementioned internet sites.

Taylor Morrison is developing the “Spring Lake” community consisting of 214 detached single-family homes constructed in three phases (one, two, and four). Ten percent of the homes will be equipped with solar power, with this feature being an option for the remaining homes. In addition, all of the homes will be equipped with the UltraSync SmartHome system (technology that permits control of locks, lights, climate, cameras, and security and life safety systems from a computer, tablet, or smart phone).

Phase one – Spring Lake – Laurel: Phase one is expected to consist of single-story and two-story homes on 100 residential lots. The 100 lots were created by Subdivision Map No. 5027 recorded on February 9, 2018. There will be five floor plans available. This community is zoned R-5 and the homes will be constructed on lots sized 55 feet by 105 feet. The homes will range in size from 1,900 square feet to 2,882 square feet comprised of 95 homes from the Laurel product line, three homes from the Olive product line, and two homes from the Ivy product line. The homes in this phase are expected to be priced from approximately \$480,990 to \$555,990.

Phase two – Spring Lake – Olive: Phase two is expected to consist of single-story and two-story homes on 70 residential lots created by Subdivision Map No. 5103 recorded on June 26, 2018. There will be six floor plans available. This community is zoned R-8 and the homes will be constructed on lots sized 45 feet by 95 feet. The homes will range in size from 1,677 square feet to 2,568 square feet and are expected to be priced from approximately \$450,990 to \$515,990.

Phase four – Spring Lake – Ivy: Phase four is expected to consist of single-story and two-story homes on 44 residential lots created by Subdivision Map No. 5110 recorded on August 14, 2018. There will be six floor plans available. This community is zoned R-4 and the homes will be constructed on lots sized 65 feet by 105 feet. The homes will range in size from 2,249 square feet to 3,184 square feet comprised of 40 homes from the Ivy product line and four homes from the Laurel product line. The homes in this phase are expected to be priced from approximately \$530,000 to \$615,990.

As of September 2018, master architectural plans for all product lines had been approved by the City. In phase one, a model home complex comprising six total homes (two from each product line) is expected to be completed and open in October 2018. Construction of production homes has commenced in phases one and two. Permits have been issued for the construction of 12 homes in phase one (Laurel) and for 16 homes in phase two (Olive). Construction permits for four homes in phase four (Ivy) have been submitted for approval, but have not yet been issued by the City. Sales efforts, operating out of a temporary trailer, have commenced and to date three homes have been sold (one from each product line).

R&B 77, LLC.

R&B 77, LLC is a California limited liability (“R&B 77”) company formed on March 16, 2017. The Members of R&B 77 are Christo D. Bardis -50%; John L. Reynen - 25%, and the Administrative Trust of the Reynen Revocable Trust dated November 9, 1990 as amended - 25%. The Manager of R&B 77 is Artisan Land Holdings, Inc., a California corporation.

R&B 77 is developing phase three and phase five of the Spring Lake community which consists of an aggregate of 92 residential lots.

Phase three – Spring Lake: Phase three consists of 84 finished residential lots that are currently owned by TMSI. R&B 77 intends to sell these lots to a merchant homebuilder, which may be an affiliate of R&B 77. The lots are zoned R-4 and range in size from 65 feet by 105 feet. The homes to be constructed on these lots are expected to range in size from 2,300 square feet to 3,200 square feet.

Phase five – Spring Lake: Phase five consists of eight [finished] residential lots, zoned R-8 and range in size from 45 feet by 95 feet to ____ feet by _____. The homes to be constructed on these lots are expected to range in size from 1,500 square feet to 2,600 square feet.

See also Table 11–“Top 1 Taxpayers, Including Development Status” for a summary of the property owners, development status, expected number of parcels owned, expected number of Single-Family units, combined value of property owned by development status as of Fiscal Year 2018-19 tax roll.

Absorption Study. The City retained The Gregory Group, Folsom, California (the “Absorption Consultant”) to perform a market absorption study dated October 2018[, as amended on _____ 2018] (the “Absorption Study”) related to development within the District. The focus of the Absorption Study was on 112 units being developed by KB Homes, 333 units being developed by Lennar, and 375 units being developed Taylor Morrison and D.R. Horton with the primary objective of providing conclusions related to absorption per project per year. The Absorption Study is based on information provided by the Developer Property Owners that included estimates as to when projects will open for sales, phase releases, infrastructure development, grading schedules, marketing considerations, and anticipated market conditions.

The Absorption Consultant concluded that the District can absorb an average of 0.70 units per week per product line over the marketing life of development within the District given the pricing (with home sizes ranging from 1,577 to 3,731 square feet and base prices range from \$434,000 to \$676,000).

A copy of the complete Absorption Study is set forth in APPENDIX C. The description herein of the Absorption Study is intended for limited purposes only; the Absorption Study should be read in its entirety. The conclusions reached in the Absorption Study are subject to certain assumptions and qualifications which are set forth in the Absorption Study.

Table 7A summarizes the projected annual absorption by Developer Property Owner through calendar year 2023.

According to the Absorption Study, there are expected to be (and the market can sustain) several different projects selling simultaneously within each product type, but built by different builders (e.g. there may be two different projects selling on 4,725 square foot lots at the same time but by Developer Property Owners).

Table 7A Projected Absorption by Developer Property Owner Calendar Years 2018 through 2023										
Developer	Start Home Sales	Lot Size/ Density	Number of Units	Recommended Absorption	2018	2019	2020	2021	2022	2023
KB Home A – Oyang North	11/01/2018	4,000	52	1.00	8	44	0	0	0	0
KB Home B – Oyang North	11/01/2018	5,500	60	0.75	6	39	15	0	0	0
Lennar Homes – Oyang South	12/01/2018	6,300	83	0.50	2	26	26	26	3	0
Lennar Homes – Oyang South	12/01/2018	6,600	85	0.50	2	26	26	26	5	0
Lennar Homes – Oyang South	12/01/2018	7,700	82	0.50	2	26	26	26	2	0
Taylor Morrison Homes – Laurel	06/01/2018	5,775	100	0.75	7	40	40	13	0	0
Taylor Morrison Homes – Olive	06/01/2018	4,275	70	1.00	10	48	12	0	0	0
Taylor Morrison Homes – Ivy	06/01/2018	6,825	44	0.50	5	24	15	0	0	0
D.R. Horton	11/01/2018	4,275	77	1.00	8	52	17	0	0	0
R&B 77	01/01/2019	6,825	84	0.50	0	26	26	26	6	0
Lennar Homes	04/01/2021	<u>4,500</u>	<u>83</u>	<u>0.75</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>30</u>	<u>40</u>	<u>13</u>
AVERAGE TOTALS		5,689	820	0.70	50	351	203	147	56	13
Years to Absorb all Units	4.91									
Source: Absorption Study.										

Table 7B estimates the number of building permits to be issued by Developer per calendar quarter through the fourth quarter of 2022.

Table 7B
Estimated Building Permits
2018 through 2022
(By Calendar Quarter)⁽¹⁾⁽²⁾

Developer	Model Construction ⁽³⁾	Model Open	Start Home Sales	Number of Units	1Q 2018	2Q 2018	3Q 2018	4Q 2018	1Q 2019	2Q 2019	3Q 2019	4Q 2019	1Q 2020	2Q 2020	3Q 2020	4Q 2020
KB Home A – Oyang North	09/01/2018	11/01/2018	11/01/2018	52	0	0	3	10	10	20	9	0	0	0	0	0
KB Home B – Oyang North	09/01/2018	11/01/2018	11/01/2018	60	0	0	4	10	10	10	10	10	6	0	0	0
Lennar Homes – Oyang South	08/01/2018	12/01/2018	12/01/2018	83	0	0	5	10	0	10	0	10	10	0	10	0
Lennar Homes – Oyang South	08/01/2018	12/01/2018	12/01/2018	85	0	0	4	10	0	10	0	10	10	0	10	0
Lennar Homes – Oyang South	08/01/2018	12/01/2018	12/01/2018	82	0	0	5	10	0	10	0	10	10	0	10	0
Taylor Morrison Homes – Laurel	03/01/2018	06/01/2018	06/01/2018	100	4	10	0	0	10	10	10	10	10	10	10	10
Taylor Morrison Homes – Olive	03/01/2018	06/01/2018	06/01/2018	70	4	10	0	10	10	10	10	10	6	0	0	0
Taylor Morrison Homes – Ivy	03/01/2018	06/01/2018	06/01/2018	44	4	10	0	0	10	0	10	10	0	0	0	0
D.R. Horton	08/01/2018	11/01/2018	11/01/2018	77	0	0	5	10	10	20	10	10	10	2	0	0
R&B 77	10/01/2018	01/01/2019	01/01/2019	84	0	0	0	0	10	10	0	10	0	10	10	0
Lennar Homes	N/A ⁽⁴⁾	N/A ⁽⁴⁾	04/01/2021	83	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS				820	12	30	26	70	70	110	59	90	62	22	50	10
YEAR END TOTAL								138				329				144

Developer	Model Construction ⁽³⁾	Model Open	Start Home Sales	Number of Units	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022
KB Home A – Oyang North	09/01/2018	11/01/2018	11/01/2018	52	0	0	0	0	0	0	0	0
KB Home B – Oyang North	09/01/2018	11/01/2018	11/01/2018	60	0	0	0	0	0	0	0	0
Lennar Homes – Oyang South	08/01/2018	12/01/2018	12/01/2018	83	10	10	8	0	0	0	0	0
Lennar Homes – Oyang South	08/01/2018	12/01/2018	12/01/2018	85	10	10	10	0	1	0	0	0
Lennar Homes – Oyang South	08/01/2018	12/01/2018	12/01/2018	82	10	10	7	0	0	0	0	0
Taylor Morrison Homes – Laurel	03/01/2018	06/01/2018	06/01/2018	100	60	0	0	0	0	0	0	0
Taylor Morrison Homes – Olive	03/01/2018	06/01/2018	06/01/2018	70	0	0	0	0	0	0	0	0
Taylor Morrison Homes – Ivy	03/01/2018	06/01/2018	06/01/2018	44	0	0	0	0	0	0	0	0
D.R. Horton	08/01/2018	11/01/2018	11/01/2018	77	0	0	0	0	0	0	0	0
R&B 77	10/01/2018	01/01/2019	01/01/2019	84	10	0	10	10	10	4	0	0
Lennar Homes	N/A ⁽⁴⁾	N/A ⁽⁴⁾	04/01/2021	83	0	20	10	10	10	10	0	0
TOTALS				820	46	50	45	20	11	14	20	3
YEAR END TOTAL								161				48

(1) The building permits analysis is based on information provided by the Developer Property Owners, and general market practices. The general market practices employed was an average two-week building permit issuance from the City.

(2) The three product lines by Taylor Morrison take into account current sales data as of October 1, 2018. Average absorption and future building permit calculations begin after October 1, 2018.

(3) If no information was provided for model construction start dates or model open dates, general market practices were used where models are constructed in three months.

(4) Explanation – To Come.

Source: Absorption Study.

Value-to-Lien. Table 8A-1 and Table 8A-2 summarize the projected Fiscal Year 2018-19 value-to-lien ratios of Taxable Property within the District by development category following the issuance of the Series 2018 Bonds based upon the status of development as of December 31, 2017, assuming no further development within the District as 11.07:1. There is no undeveloped property in the District. These tables include the expected number of single family units, the combined assessed and appraised values, Special Tax lien, direct overlapping tax and assessment debt, as reported by California Municipal Statistics, Inc. (see “–Direct and Overlapping Bonded Indebtedness”), and excludes overlapping general fund debt and PACE liens recorded against 11 parcels in the District.

See Table 13–“Statement of Direct and Overlapping Bonded Indebtedness” for a summary of outstanding debt within the District for Fiscal Year 2017-18.

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**Table 8A-1
City of Woodland
Community Facilities District No. 2004-1 (Spring Lake)
Property Classification by Land Use Category
Fiscal Year 2018-19⁽¹⁾**

<u>Development Category</u>	<u>Number of Taxable Parcels</u>	<u>Percent of Taxable Parcels</u>	<u>Expected Number of Single Family Units</u>	<u>Combined Value⁽²⁾</u>	<u>Percent of Combined Value</u>	<u>Projected Fiscal Year 2018-19</u>		<u>Total District Debt Lien⁽³⁾</u>	<u>Average Value- to- Lien Ratio</u>
						<u>Special Tax Levy</u>	<u>Percent of Special Tax Levy</u>		
Developed Property⁽⁴⁾									
Single Family ⁽⁵⁾	1,671	87.95%	1,671	\$717,292,234	84.77%	\$3,623,012	100.00%	\$76,248,522	9.41
Small Lot Tentative Map Property Included in a Final Map									
Single Family ⁽⁵⁾	221	11.63	221	36,422,975	4.30	0	0.00	91,889	396.38
Not Included in a Final Map									
Single Family ⁽⁵⁾	7	0.37	830	88,488,375	10.46	0	0.00	83,225	1,063.25
Multi-Family ⁽⁶⁾	0	0.00	0	0	0.00	0	0.00	0	N/A
Mixed ⁽⁷⁾	1	0.05	46	3,950,000	0.47	0	0.00	44,694	88.38
Subtotal Small Lot Tentative Map Property	229	12.05	1,097	128,861,350	15.23	0	0.00	219,808	586.25
Undeveloped Property	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>N/A</u>
TOTAL TAXABLE PROPERTY	1,900	100.00%	2,768	\$846,153,584	100.00%	\$3,623,012	100.00%	\$76,468,329	11.07
Future BUA Release Property ⁽⁸⁾	45.6 acres								
Property Outside District and Within the Spring Lake Specific Plan Area ⁽⁹⁾	24.6 acres								

- (1) The projected Fiscal Year 2018-19 Special Tax levy is based on the status of development as of December 31, 2017. Excludes 71 parcels that prepaid the Special Tax prior to July 15, 2018 and 22.39 acres of Multi-Family Property that may become exempt from the Special Tax in the future.
- (2) Includes appraised values of parcels that were appraised and the Fiscal Year 2018-19 assessed values for parcels that were not appraised. Appraised values were allocated to individual parcels as shown in the Appraisal. See APPENDIX C—"APPRAISAL OF REAL PROPERTY." The allocated values may not be indicative of the market values of the groupings or the individual parcels. Does not include values for parcels that are not Taxable Property in Fiscal Year 2018-19.
- (3) Represents the debt lien of \$23,920,000 outstanding principal amount of Series 2013 Bonds and \$26,540,000 outstanding principal amount of the Series 2016 Bonds as of September 2, 2018, plus the estimated \$21,000,000* principal amount of the Series 2019 Bonds. Allocated based on the projected Fiscal Year 2018-19 Special Tax levy and not the Maximum Special Tax. Includes direct and overlapping tax and assessment debt as reported by California Municipal Statistics, Inc. See "—Direct and Overlapping Bonded Indebtedness." Does not include any overlapping general fund debt or PACE liens on properties within the District. As of Fiscal Year [2018-19], there are 11 homes with PACE liens within the District.
- (4) Includes properties for which the City issued building permits prior to January 1, 2018. Does not include parcels which have prepaid their Special Tax obligation as of July 15, 2018.
- (5) Includes properties zoned for "R-8" or lower density development.
- (6) Defined as properties zoned for "R-15" or higher density development. These properties are currently considered Taxable Property, but are excluded because they may become exempt Affordable Multi-Family Property in the future. Includes parcels 041-231-028, 042-030-054, 042-574-001, and 042-580-073, which are expected to be developed as 19.59 acres of Multi-Family Property in total. These parcels have a combined Fiscal Year 2018-19 assessed value of \$4,351,910 and have a combined projected Fiscal Year 2018-19 Maximum Special Tax of \$248,669.
- (7) Currently this parcel is anticipated to be developed into 46 single family units and 2.8 acres of High Density Property. The High-Density Property is excluded because it may become exempt Affordable Multi-Family Property in the future. The entire appraised value of this parcel is included above. The High-Density portion of this parcel has a projected Fiscal Year 2018-19 Maximum Special Tax of \$33,990.
- (8) Estimated acreage of areas within the District boundaries that will become taxable if BUAs are issued.
- (9) Estimated acreage of areas outside the District boundaries that are within the Spring Lake Specific Plan Area. These properties will become Taxable Property if annexed to the District and BUAs are issued. Does not include areas in the Master Plan Remainder Area. See "THE SPRING LAKE SPECIFIC PLAN AREA—General" for a description of the Master Plan Remainder Area.

* Preliminary, subject to change.

Sources: Yolo County Assessor's Office, Integra Realty Resources – Sacramento, California Municipal Statistics, Inc., and Goodwin Consulting Group, Inc.

Table 8B-2
City of Woodland
Community Facilities District No. 2004-1 (Spring Lake)
Status of Development as of Fiscal Year 2018-19⁽¹⁾

<u>Development Category</u>	<u>Number of Parcels</u>	<u>Expected Number of Single Family Units</u>	<u>Combined Value⁽²⁾</u>	<u>Projected Fiscal Year 2018-19</u>		<u>Total District Debt Lien⁽³⁾</u>	<u>Average Value- to- Lien Ratio</u>
				<u>Maximum Special Tax</u>	<u>Special Tax Levy</u>		
Developed Property⁽⁴⁾							
Appraised Parcels	30	30	\$15,315,000	\$65,050	\$65,050	\$1,296,423	11.81
Unappraised Parcels With Improved Value	<u>1,641</u>	<u>1,641</u>	<u>701,977,234</u>	<u>3,557,961</u>	<u>3,557,961</u>	<u>74,952,098</u>	<u>9.37</u>
Subtotal Developed Property	1,671	1,671	717,292,234	3,623,012	3,623,012	76,248,522	9.41
Small Lot Tentative Map Property							
Appraised Parcels within a Final Map	221	221	36,422,975	493,980	0	91,889	396.38
Appraised Parcels not within a Final Map	<u>8</u>	<u>876</u>	<u>92,438,375</u>	<u>1,945,994</u>	<u>0</u>	<u>127,919</u>	<u>722.63</u>
Subtotal Small Lot Tentative Map	229	1,097	128,861,350	2,439,974	0	219,808	586.25
Property							
Undeveloped Property	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>N/A</u>
TOTAL TAXABLE PROPERTY	1,900	2,768	\$846,153,584	\$6,062,985	\$3,623,012	\$76,468,329	11.07
Future BUA Release Property ⁽⁵⁾	45.6 acres						
Property Outside District and Within the Spring Lake Specific Plan Area ⁽⁶⁾	24.6 acres						

(1) The Fiscal Year 2018-19 Special Tax levy is based on the status of development as of December 31, 2017. Excludes 71 parcels that have prepaid the Special Tax prior to July 15, 2018, and 22.39 acres of Multi-Family Property that may become exempt from the Special Tax in the future.

(2) Includes appraised values of parcels that were appraised and the Fiscal Year 2018-19 assessed values for parcels that were not appraised. Appraised values were allocated to individual parcels as shown in the Appraisal. See APPENDIX C—"APPRAISAL OF REAL PROPERTY." The allocated values may not be indicative of the market values of the groupings or the individual parcels. Does not include values for parcels that are not Taxable Property in Fiscal Year 2018-19.

(3) Represents the debt lien of \$23,920,000 outstanding principal amount of Series 2013 Bonds and \$26,540,000 outstanding principal amount of the Series 2016 Bonds as of September 2, 2018, plus the estimated \$21,000,000* principal amount of the Series 2019 Bonds. Allocated based on the Fiscal Year 2018-19 Special Tax levy and not the Maximum Special Tax. Includes direct and overlapping tax and assessment debt as reported by California Municipal Statistics, Inc. See "—Direct and Overlapping Bonded Indebtedness." Does not include any overlapping general fund debt or PACE liens on properties within the District. As of Fiscal Year [2018-19], there are 11 homes with PACE liens within the District.

(4) Includes properties for which the City issued building permits prior to January 1, 2018. Does not include parcels which have prepaid their Special Tax obligation as of July 15, 2018.

(5) Estimated acreage of areas within the District boundaries that will become taxable if BUAs are issued.

(6) Estimated acreage of areas outside the District boundaries that are within the Spring Lake Specific Plan Area. These properties will become Taxable Property if annexed to the District and BUAs are issued. Does not include areas in the Master Plan Remainder Area. See "THE SPRING LAKE SPECIFIC PLAN AREA—General" for a description of the Master Plan Remainder Area.

* Preliminary, subject to change.

Sources: Yolo County Assessor's Office, Integra Realty Resources, Inc., and Goodwin Consulting Group, Inc.

Property Values in the District

As of September 11, 2018, the aggregate assessed and appraised value of the property within the District is estimated to be not less than \$846.1 million.

Assessed Value. The total assessed value of Taxable Property in the District for Fiscal Year 2018-19 is \$759.6 million. This value is not necessarily representative of the actual market value of the property in the District, however, since Article XIII A of the California Constitution limits any increase in assessed value to no more than 2% per year unless property is sold or transferred. As a consequence, assessed values are typically less than actual market values unless the property has recently changed ownership. This value does not account for any reassessments based on changes in ownership or improvements to property occurring after January 1, 2018.

Table 9 summarizes the assessed value for Taxable Property and the number of building permits issued within the District for Fiscal Years 2007-08 through 2018-19.

Table 9 City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Assessed Value of Taxable Property and the Number of Building Permits Issued Fiscal Years 2007-08 through 2018-19				
Fiscal Year	Land Assessed Value	Improvement Assessed Value	Total Assessed Value⁽¹⁾	Number of Building Permits Issued as of January 1⁽²⁾
2007-08	\$210,443,992	\$88,865,863	\$299,309,855	441
2008-09	211,783,560	135,014,733	346,798,293	658
2009-10	165,898,519	186,432,194	352,330,713	813
2010-11	146,660,019	187,249,327	333,909,346	933
2011-12	118,988,098	177,879,019	296,867,117	935
2012-13	100,132,144	178,295,511	278,427,655	964
2013-14 ⁽³⁾	98,258,820	186,047,587	284,306,407	979
2014-15	125,159,210	255,278,939	380,438,149	1,050
2015-16 ⁽⁴⁾⁽⁵⁾	143,333,610	305,675,397	449,119,207	1,166
2016-17 ⁽⁵⁾⁽⁶⁾	165,735,617	358,315,063	524,153,580	1,302
2017-18 ⁽⁷⁾	180,534,401	463,914,237	644,448,638	1,562
2018-19	217,670,513	541,990,761	759,661,274	1,671

(1) Assessed value of taxable property as reported on the County Assessor's roll as of January 1 preceding each Fiscal Year. Does not include assessed value of prepaid properties starting in the Fiscal Year in which those properties were no longer subject to the Special Tax.

(2) Does not include building permits for parcels that prepaid the Special Tax obligation.

(3) Includes an additional \$655,146 of assessed value due to the issuance of BUAs for two projects prior to Fiscal Year 2013-14. The assessed values for these projects are included in the totals for subsequent years.

(4) Includes an additional \$8,392,481 of assessed value due to the issuance of BUAs for three projects prior to Fiscal Year 2015-16. The assessed values for these projects are included in the totals for subsequent years.

(5) Total assessed value in this year includes assessed values of personal property

(6) Includes an additional \$9,000,000 of assessed value due to the issuance of BUAs for one project prior to Fiscal Year 2016-17. The assessed values for these projects are included in the totals for subsequent years.

(7) Includes an additional \$5,150,000 of assessed value due to the issuance of BUAs for one project prior to Fiscal Year 2017-18.

(8) Includes an additional \$23,476,932 of assessed value due to the issuance of BUAs for three projects prior to Fiscal Year 2018-19.

Sources: Yolo County Assessor's Office and Goodwin Consulting Group, Inc.

Appraised Value

General. Integra Realty Resources – Sacramento, Rocklin, California (the “Appraiser”) prepared an appraisal to estimate the market value (fee simple estate), by ownership and Assessor’s parcel, and the cumulative, or aggregate value, of a total of 1,072 parcels comprised of 420 finished residential lots; 528 unimproved residential lots; 76 partially completed homes (without a complete assessment for structural improvements), 46 completed single-family homes (without an assessed value for structural improvements), and two residential parcels (both single – and multi-family) classified as transitional land (collectively, the “Appraised Property”) that have been sold or are currently in contract for sale to Developer Property Owners, subject to the hypothetical condition that certain of the proceeds from the Series 2019 Bonds are available to reimburse the Developer Property Owners for infrastructure improvements completed, as of the effective date of the appraisal, September 11, 2018 (the “Appraisal”). The Appraiser prepared the Appraisal at the request of the City.

The complete Appraisal is set forth in APPENDIX C. The description herein of the Appraisal is intended for limited purposes only; the Appraisal should be read in its entirety. The conclusions reached in the Appraisal are subject to certain assumptions and qualifications which are set forth in the Appraisal.

Value Estimates. The estimate of the market value of the fee simple estate of the Appraised Property in the District subject to the Special Tax was as of the effective date of the appraisal, September 11, 2018. The value estimate assumes a transfer would reflect a cash transaction or terms considered to be equivalent to cash. The estimate is also premised on an assumed sale after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with buyer and seller each acting prudently, knowledgeably, for their own self-interest, and assuming neither is under duress. The aggregate value estimate for the Appraised Property as of the September 11, 2018 date of value, using the methodologies described in the Appraisal and subject to the limiting conditions and extraordinary assumptions set forth in the Appraisal, and based on the ownership of the Appraised Property as of that date is not less than \$144,176,350.

The Appraisal is an estimate of the hypothetical market value of the Appraised Property, assuming the completion of the improvements to be financed with the proceeds of the Series 2019 Bonds.

Market Value. The estimate of market value provided in the Appraisal assume a transfer would reflect a cash transaction or terms considered to be equivalent to cash. The estimates are also premised on an assumed sale after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with buyer and seller acting prudently, knowledgeably, for their own self-interest and assuming neither is under duress. Further, the estimates of market value, by ownership, estimated in the Appraisal specifically assume the appraised properties within the boundaries of the District are not marketed concurrently, which would suggest a market under duress.

Extraordinary Assumptions and Hypothetical Conditions. In considering the estimate of value evidenced by the Appraisal, the Appraisal is based upon a number of standard and extraordinary assumptions which affect the estimates as to value, and include some of the following. See APPENDIX C– “APPRAISAL OF REAL PROPERTY” for a complete list of assumptions and limiting conditions.

It is presumed that there are no adverse soil conditions, toxic substances or other environmental hazards that may interfere or inhibit development of the Appraised Property. If, at some future date, items are discovered that are determined to have a detrimental impact on value, then the Appraiser reserves the right to amend the opinion of value stated in the Appraisal.

The value conclusions are based on the following hypothetical conditions that may affect the assignment results. A hypothetical condition is a condition contrary to known fact on the effective date of the appraisal but is supposed for the purpose of analysis. It is a hypothetical condition of the Appraisal that certain of the proceeds from the Series 2019 Bonds are available to reimburse for infrastructure improvements completed. The estimates of market value account for the impact of the lien of the Special Taxes securing the Bonds.

For a description of certain risks that might affect the assumptions made in the Appraisal, see “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS.”

Market Absorption Study. In addition to the Appraisal, the City retained The Gregory Group, Folsom, California (the “Absorption Consultant”) to prepare a market Absorption Study (the “Absorption Study”) related to the Appraised Property. The Absorption Study is attached as APPENDIX D.

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A summary of the value-to-lien ratios, including the Series 2019 Bonds and excluding parcels on which the Special Tax will not be levied in Fiscal Year 2018-19 based on the development status (i.e. issuance of building permits and recordation of final maps) within the District as of December 31, 2017, excluding overlapping general fund debt and PACE liens, is set forth in Table 10.

Table 10
City of Woodland
Community Facilities District No. 2004-1 (Spring Lake)
Value-to-Lien Ratios for Fiscal Year 2018-19⁽¹⁾

<u>Value-to-Lien</u>	<u>Number of Parcels</u>	<u>Expected Number of Single Family Units</u>	<u>Combined Value⁽²⁾</u>	<u>Projected Fiscal Year 2018-19</u>			<u>Total Debt Lien⁽³⁾</u>	<u>Average Value-to- Lien Ratio</u>
				<u>Maximum Special Tax</u>	<u>Special Tax Levy</u>	<u>Percent of Special Tax Levy⁽³⁾</u>		
20:1 and Above	226	1,094	\$128,607,275	\$2,434,432	\$0 ⁽⁴⁾	0.00%	\$219,808	585.09
15:1 to 20:1	10	10	4,848,931	14,187	14,187	0.39	303,606	15.97
10:1 to 15:1	616	616	314,057,593	1,328,770	1,328,770	36.68	28,071,958	11.19
5:1 to 10:1	1,021	1,021	394,861,657	2,227,705	2,227,705	61.49	46,814,753	8.43
3:1 to 5:1	16	16	2,759,718	33,779	33,779	0.93	687,898	4.01
1:1 to 3:1	8	8	764,335	18,572	18,572	0.51	370,307	2.06
0:1 to 1:1 ⁽⁵⁾	1	1	134,075	1,847	0	0.00	0	N/A
City Parcels ⁽⁶⁾	<u>2</u>	<u>2</u>	<u>120,000</u>	<u>3,695</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>N/A</u>
TOTAL	1,900	2,768	\$846,153,584	\$6,062,985	\$3,623,012	100.00%	\$76,468,329	11.07

(1) The Fiscal Year 2018-19 Special Tax levy is based on the status of development as of December 31, 2017. Excludes 71 parcels that have prepaid the Special Tax prior to July 15, 2018, and 22.39 acres of Multi-Family Property that may become exempt from the Special Tax in the future.

(2) Includes appraised values of parcels that were appraised and the Fiscal Year 2017-18 assessed values for parcels that were not appraised. Appraised values were allocated to individual parcels as shown in the Appraisal. See APPENDIX C—"APPRAISAL OF REAL PROPERTY." The allocated values may not be indicative of the market values of the groupings or the individual parcels. Does not include values for parcels that are not Taxable Property in Fiscal Year 2018-19.

(3) Represents the debt lien of \$23,920,000 outstanding principal amount of Series 2013 Bonds and the \$26,540,000 outstanding principal amount of the Series 2016 Bonds as of September 2, 2018, plus the \$21,000,000* principal amount of Series 2019 Bonds. Allocated based on the Fiscal Year 2018-19 Special Tax levy and not the Maximum Special Tax. Includes direct and overlapping tax and assessment debt as reported by California Municipal Statistics, Inc. See "—Direct and Overlapping Bonded Indebtedness." Does not include any overlapping general fund debt or PACE liens on properties within the District. As of Fiscal Year [2018-19], there are 11 homes with PACE liens within the District.

(4) Represents Tentative Map Property.

(5) Includes one parcel planned for development of 10 affordable cluster units.

(6) Includes two units owned by the City which are subject to the Special Tax but have no assessed value.

* Preliminary, subject to change.

Sources: Yolo County Auditor-Controller's Office, Integra Realty Resources, Inc., and Goodwin Consulting Group, Inc.

Table 11 sets forth the top 10 taxpayers, including development status of Taxable Parcels in the District based on the Fiscal Year 2018-19 tax levy.

Table 11
City of Woodland
Community Facilities District No. 2004-1 (Spring Lake)
Top 10 Taxpayers including Development Status
Based on Fiscal Year 2018-19 Tax Levy⁽¹⁾

Property Owner	Development Status ⁽²⁾	Number of Taxable Parcels	Expected Number of Single Family Units	Combined Value ⁽³⁾	Fiscal Year 2018-19			Total Debt Lien ⁽⁴⁾	Average Value to Lien
					Maximum Special Tax	Projected Special Tax Levy	Share of Special Tax Levy		
Lennar Homes of California, Inc.	Developed, Appraised Parcels	15	15	\$7,510,000	\$30,348	\$30,348	0.84%	\$603,568	12.44
	Developed, with improvement value	13	13	4,907,673	25,994	25,994	0.72	519,695	9.44
	Partially Developed, Appraised Parcels	167	167	29,213,825	364,572	0	0.00	58,922	495.81
	Small lot tentative map, in a final map	2	333	28,709,475	788,191	0	0.00	31,159	921.38
	Small lot tentative map, not in a final map	197	528	70,340,973	1,209,104	56,342	1.56	1,213,344	57.97
	SUBTOTAL								
Individual Homeowner	Developed, with improvement value	2	2	1,384,013	5,212	5,212	0.14	108,057	12.81
Individual Homeowner	Developed, with improvement value	2	2	1,096,344	5,113	5,113	0.14	109,209	10.04
Stover Ridge, LLC	Developed, Appraised Parcels	2	2	1,090,000	5,014	5,014	0.14	99,837	10.92
Individual Homeowner	Developed, with improvement value	2	2	711,684	5,014	5,014	0.14	101,634	7.00
Needham Enterprises, LP	Developed, with improvement value	2	2	1,302,186	5,014	5,014	0.14	108,549	12.00
Individual Homeowner	Developed, with improvement value	2	2	851,268	4,750	4,750	0.13	100,183	8.50
Individual Homeowner	Developed, with improvement value	2	2	895,600	4,750	4,750	0.13	100,521	8.91
Individual Homeowner	Developed, with improvement value	2	2	719,028	4,750	4,750	0.13	100,075	7.18
Individual Homeowner	Developed, with improvement value	2	2	731,968	4,486	4,486	0.12	93,806	7.80
SUBTOTAL – TOP TEN TAXPAYERS		215	546	79,123,064	1,253,208	100,445	2.77	2,135,215	37.06
All Others ⁽⁵⁾⁽⁶⁾		1,685	2,222	767,030,520	4,809,777	3,522,566	97.23	74,333,114	10.32
TOTAL		1,900	2,768	\$846,153,584	\$6,062,985	\$3,623,012	100.00%	\$76,468,329	11.07
Future BUA Release Property ⁽⁷⁾			45.6 acres						
Property Outside District and Within the Spring Lake Specific Plan Area ⁽⁸⁾			24.6 acres						

- (1) The Fiscal Year 2018-19 Special Tax levy is based on the status of development as of December 31, 2017. Excludes 71 parcels that have prepaid the Special Tax prior to July 15, 2018, and 22.39 acres of Multi-Family Property that may become exempt from the Special Tax in the future.
- (2) Developed Property includes properties for which the City issued building permits prior to January 1, 2018.
- (3) Includes appraised values of parcels that were appraised and the Fiscal Year 2018-19 assessed values for parcels that were not appraised. Appraised values were allocated to individual parcels as shown in the Appraisal. See APPENDIX C—"APPRAISAL OF REAL PROPERTY." The allocated values may not be indicative of the market values of the groupings or the individual parcels. Does not include values for parcels that are not Taxable Property in Fiscal Year 2018-19.
- (4) Represents the debt lien of \$23,920,000 outstanding principal amount of Series 2013 Bonds and the \$26,540,000 outstanding principal amount of the Series 2016 Bonds as of September 2, 2018, plus \$21,000,000* principal amount of Series 2019 Bonds. Allocated based on the Fiscal Year 2018-19 Special Tax levy and not the Maximum Special Tax. Includes direct and overlapping tax and assessment debt as reported by California Municipal Statistics, Inc. See "Direct and Overlapping Bonded Indebtedness." Does not include any overlapping general fund debt or PACE liens on properties within the District. As of Fiscal Year [2018-19], there were 11 homes with PACE liens with the District.
- (5) Includes 1,625 parcels of Developed Property that are single family parcels. The remaining 60 parcels are Small Lot Tentative Map Property, including 54 single family parcels, one parcel expected to be developed with 10 Affordable Cluster Units, five parcels expected to be developed with 533 single-family units, and 2.8 acres of multi-family property.
- (6) Does not include parcels which have prepaid their Special Tax obligation as of July 15, 2018.
- (7) Estimated acres of areas within the District boundaries that will become taxable if BUAs are issued.
- (8) Estimated acres of areas outside the District boundaries that are within the Spring Lake Specific Plan Area. These properties will become taxable if annexed to the District and BUAs are issued. Does not include areas in the Master Plan Remainder Area. See "THE SPRING LAKE SPECIFIC PLAN AREA-General" for a description of the Master Plan Remainder Area.
- * Preliminary, subject to change.

Sources: Yolo County Auditor-Controller's Office, Integra Realty Resources, Inc., California Municipal Statistics, Inc., and Goodwin Consulting Group, Inc.

Secured Property Tax Levies, Collections and Delinquencies

Historically, delinquencies for each property tax installment period are higher immediately following the respective installment payment due date. Late payments received after the respective due date reduce the outstanding delinquencies for each installment period.

Table 12 summarizes of payment history for taxes levied in the District on Taxable Property for the past 10 Fiscal Years and as of July 8, 2018.

Table 12 City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Historical Delinquency Information						
Fiscal Year	As of Fiscal Year End			As of July 8, 2018		
	Number of Taxable Parcels Delinquent	Amount Delinquent	% Delinquent	Number of Taxable Parcels Delinquent	Amount Delinquent	Percentage Delinquent
2006-07	6	\$10,094	0.41%	0	\$0	0.00%
2007-08	79	286,153	11.77	0	0	0.00
2008-09	43	62,771	2.58	0	0	0.00
2009-10	13	18,022	0.75	0	0	0.00
2010-11	14	20,121	0.83	0	0	0.00
2011-12	13	17,774	0.74	0	0	0.00
2012-13	14	18,459	0.77	0	0	0.00
2013-14	8	9,323	0.36	0	0	0.00
2014-15	4	5,801	0.24	1	2,072	0.09
2015-16	3	5,409	0.19	1	2,114	0.07
2016-17	5	8,053	0.26	0	0	0.00
2017-18	7	9,702	0.29	7	9,702	0.29

Sources: Yolo County Auditor-Controller's Office and Goodwin Consulting Group, Inc.

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Direct and Overlapping Bonded Indebtedness

Set forth in Table 13 below is the Statement of Direct and Overlapping Bonded Indebtedness for the District based upon assessed value for Fiscal Year 2018-19. Therefore, the following table *does not* include the assessed value of any property that received a BUA after January 1, 2018 or any PACE liens. Based upon a review by the Special Tax Administrator as of December 1, 2018, there were 11 parcels within the District with PACE liens.

Table 13 City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Statement of Direct and Overlapping Bonded Indebtedness [To be Updated]		
<u>2018-19 Local Secured Assessed Valuation:</u> \$_____ (Land and Improvements)		
<u>DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT:</u>	<u>% Applicable</u>	<u>Debt 12/1/18</u>
Yuba Joint Community College District General Obligation Bonds		
Woodland Joint Unified School District General Obligation Bonds		
City of Woodland Community Facilities District No. 2004-1	100.	(1)
TOTAL DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT		
COMBINED TOTAL DEBT		(2)
(1) Excludes Mello-Roos Act bonds to be sold.		
<u>Ratios to 2018-19 Assessed Valuation:</u>		
Direct Debt (\$_____)	_____ %	
Total Direct and Overlapping Tax and Assessment Debt...	_____ %	
Source: California Municipal Statistics, Inc.		

Lighting and Landscaping District. A lighting and landscaping district was formed in 2005 to provide for the continued maintenance, administration and operation of various landscape and lighting improvements within the District. Maximum annual assessments for this district range from \$1,375 to \$525 for single-family residences and multi-family residences, respectively, and these base amounts also increase annually by an inflation factor equal to the Engineering News Record Common Labor Cost Index rate.

Maintenance Community Facilities District. A maintenance community facilities district was formed in 2005 to provide for continued maintenance and administration of the 40-acre sports park, which was a requirement of the Spring Lake Specific Plan. Maximum annual assessments for that district range from \$180 to \$150 for single-family residences and multi-family residences, respectively, and also increase by an annual inflation factor equal to the Engineering News Record Common Labor Cost Index rate.

Table 14 summarizes a sample tax bill for single-family units of improved Taxable Property within the District in accordance with the Special Tax Formula for Fiscal Year 2018-19.

To provide an indication of the tax burden on individual homeowners in the District the actual Fiscal Year 2018-19 tax bill for a parcel of Taxable Property with an assessed value closest to the median assessed value for individually-owned Residential Property is summarized below.

Table 14 City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Sample Tax Bill Information for Fiscal Year 2018-19					
		Land Use Designation			
<u>Assumptions</u>		<u>R-3</u>	<u>R-4</u>	<u>R-5</u>	<u>R-8</u>
Total Assessed Value ⁽¹⁾		\$618,000	\$523,000	\$424,000	\$382,000
Homeowner's Exemption		<u>(7,000)</u>	<u>(7,000)</u>	<u>(7,000)</u>	<u>(7,000)</u>
Net Assessed Value		\$611,000	\$516,000	\$417,000	\$375,000
<u>Ad Valorem Taxes</u>	<u>Applied Percentage⁽²⁾</u>	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>
Countywide 1%	1.0000%	\$6,110	\$5,160	\$4,170	\$3,750
Woodland JUSD 2000 Bond	0.0320	196	165	133	120
Yuba CCD 2006 Bond A	0.0129	79	66	54	48
Yuba CCD 2006 Bond B	0.0111	68	57	46	42
Yuba CCD 2006 Bond C	<u>0.0024</u>	<u>14</u>	<u>12</u>	<u>10</u>	<u>9</u>
Yuba CCD 2006 Bond D	<u>0.0036</u>	<u>22</u>	<u>19</u>	<u>15</u>	<u>14</u>
Total Ad Valorem Taxes	1.0583%	\$6,488	\$5,480	\$4,428	\$3,982
		<u>Amount</u>	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>
<u>Direct Charges</u>					
Woodland CFD No. 2004-1 (Spring Lake) ⁽³⁾		\$2,606	\$2,507	\$2,243	\$1,847
All Other Direct Charges ⁽⁴⁾		<u>1,148</u>	<u>1,059</u>	<u>1,005</u>	<u>925</u>
Total Direct Charges		\$3,754	\$3,566	\$3,248	\$2,772
Total Taxes and Direct Charges		\$10,242	\$9,045	\$7,676	\$6,754
Percentage of Total Assessed Value		1.66%	1.75%	1.81%	1.77%
(1) Represents the average Fiscal Year 2018-19 assessed value of single family properties with improvement values for each land use designation. (2) Fiscal Year 2018-19 <i>Ad Valorem</i> Tax Rates. (3) Equals the Maximum Special Tax rate for each land use designation for Fiscal Year 2018-19. (4) Represents the Fiscal Year 2018-19 total direct charge amount, excluding the Woodland CFD No. 2004-1 Special Tax, for a sample parcel. Does not include any PACE assessments. As of Fiscal Year [2018-19], there were 11 homes with PACE liens within the District. Sources: Yolo County Auditor-Controller's Office and Goodwin Consulting Group, Inc.					

Special Tax Administration

Goodwin Consulting Group, Inc., Sacramento, California, has been retained by the City to assist the City's Finance Department in the administration of the Special Tax calculations for the District. Goodwin Consulting Group, Inc. provides special assessment district and community facilities district administration services for numerous California government entities.

LEGAL MATTERS

General

The validity of the Series 2019 Bonds and certain other legal matters are subject to the approving legal opinion of Kronick, Moskovitz, Tiedemann & Girard, a Professional Corporation, Sacramento, California, Bond Counsel. A copy of the proposed form of opinion of Bond Counsel is set forth in APPENDIX G hereto, and the final opinion will be made available to the owners of the Series 2019 Bonds at the time of delivery. Bond Counsel has not undertaken any responsibility for the accuracy, completeness or fairness of this Official Statement.

Certain legal matters will be passed upon for the City by Best, Best & Krieger, LLP, Sacramento, California, City Attorney and by Schiff Hardin LLP, San Francisco, California, Disclosure Counsel to the City and for the Underwriter by Stradling Yocca Carlson & Rauth, a Professional Corporation, Newport Beach, California.

The fees of Bond Counsel, Disclosure Counsel and Underwriter's Counsel are contingent upon the issuance of the Series 2019 Bonds.

Litigation Related to Affordable Housing

In spring 2017, two actions (*Harris v. City of Woodland, Respondent, Taylor Morrison of California, LLC and R&B 77, LLC, Real Part[ies] in Interest*, Case No. CV PT 18-594 (“*Harris I*”); and *Harris v. City of Woodland*, Case No. CV PT 18-731 (“*Harris II*”)) were filed in Yolo County Superior Court challenging certain actions taken by the City in connection with the Housing Element, Affordable Housing Plan of the Spring Lake Specific Plan.

In *Harris I*, the Petitioner sought a writ of mandate to void inclusionary housing agreements that required the payment of affordable housing in-lieu fees. These agreements implemented the Development Agreements. The Petitioner also sought to have the Superior Court order the City to establish implementation processes and procedures for the Spring Lake Central Project, Spring Lake Central Specific Plan, Spring Lake Central Specific Plan Affordable Housing Plan, and for the voter approved Urban Limit Line Act that was approved by the voters of the City on June 6, 2006 (the “ULLA”). The City and the Real Parties filed a joint demurrer on the primary grounds that the Petitioner's challenge was untimely as it effectively challenged the Development Agreements that were approved in 2015. The matter was heard in the Superior Court on June 21, 2018. After considering oral arguments, the Superior Court upheld its tentative ruling, which sustained the demurrer with leave to amend. The Petitioner filed a first amended petition for writ of extraordinary mandamus on July 20, 2018. The City and Real Parties filed a demurrer. The Petitioner also sought an ex parte order to enjoin further housing construction, which was denied. On September 26, 2018, the Superior Court heard and considered the parties' arguments and sustained the City's and Real Parties' demurrer without leave to amend. The Court entered an order on October 16, 2018, and the City and Real Parties filed a Notice of Entry of Order on October 26, 2018. The City anticipates an appeal by Petitioner to the Third District Court of Appeal.

In *Harris II*, the Petitioner sought a writ of mandate to compel the City to amend its inclusionary housing ordinance based upon the California Government Code and the ULLA. The City filed a demurrer on the primary grounds that the Petitioner's challenge failed to state a cause of action and requested relief for which a writ of mandate cannot issue. The matter was heard in the Superior Court on June 28, 2018. After completing oral arguments, the Superior Court upheld its tentative ruling, which sustained the demurrer with leave to amend. The Petitioner filed a First Amended Petition for Extraordinary Mandamus on August 30, 2018. The City filed a demurrer, which was scheduled for hearing on October 10, 2018. The

Superior Court issued a tentative ruling the day before, in favor of the City, sustaining the demurrer without leave to amend. The Petitioner did not request a hearing. The Petitioner has indicated he intends to file an appeal to the Third District Court of Appeal.

The City does not believe that the eventual disposition of either case will have a material adverse effect on the collection of the Special Tax or the ability to proceed with development within the District.

TAX MATTERS

In the opinion of Kronick, Moskovitz, Tiedemann & Girard, a Professional Corporation, Sacramento, California, Bond Counsel, based upon the analysis of existing statutes, regulations, ruling and court decisions, and assuming, among other things, the accuracy of certain representations and compliance with certain covenants, the interest on the Series 2019 Bonds is excludable from gross income for federal income tax purposes and is exempt from State of California personal income taxes. Bond Counsel is also of the opinion that interest on the Bonds is not an item of tax preference for purposes of the alternative minimum tax. A complete copy of the proposed form of Opinion of Bond Counsel is set forth in Appendix G.

The Internal Revenue Code of 1986, as amended, (the “Code”) imposes various restrictions, conditions, and requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the Series 2019 Bonds. The City has covenanted to comply with certain restrictions designed to assure that interest on the Series 2019 Bonds will not be included in federal gross income. Failure to comply with these covenants may result in interest on the Series 2019 Bonds being included in federal gross income, possibly from the date of issuance of the Series 2019 Bonds. The opinion of Bond Counsel assumes compliance with these covenants. Bond Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken) or events occurring (or not occurring) after that date of issuance of the Series 2019 Bonds may adversely affect the tax status of interest on the Series 2019 Bonds.

Although Bond Counsel expects to render an opinion that interest on the Series 2019 Bonds is excludable from gross income for federal income tax purposes and exempt from State of California personal income taxes, the ownership or disposition of, or the accrual or receipt of interest on, the Series 2019 Bonds may otherwise affect a Beneficial Owner’s federal or state tax liability. The nature and extent of these other tax consequences will depend upon the particular tax status of the Beneficial Owner or the Beneficial Owner’s other items of income or deduction. Bond Counsel expresses no opinion regarding any such other tax consequences.

In addition, no assurance can be given that any future legislation, including amendments to the Code, if enacted into law, or changes in interpretation of the Code, will not cause interest on the Series 2019 Bonds to be subject, directly or indirectly, to federal and/or state income taxation, or otherwise prevent beneficial owners of the Series 2019 Bonds from realizing the full current benefit of the tax status of such interest. Prospective purchasers of the Series 2019 Bonds should consult their own tax advisers regarding any pending or proposed federal tax legislation. Further, no assurance can be given that the introduction or enactment of any such future legislation, or any action of the Internal Revenue Service (“IRS”), including but not limited to regulation, ruling, or selection of the Series 2019 Bonds for audit examination, or the course or result of any IRS examination of the Series 2019 Bonds, or obligations that present similar tax issues, will not affect the market price or liquidity of the Series 2019 Bonds.

ABSENCE OF MATERIAL LITIGATION

At the time of delivery of and payment for the Series 2019 Bonds, the City will certify that there is no action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court or regulatory agency, public board or body pending or threatened against the City affecting its existence, or the titles of its officers, or seeking to restrain or to enjoin the issuance, sale or delivery of the Series 2019 Bonds, the application of the proceeds thereof in accordance with the Fiscal Agent Agreement, or the collection or levy of the Special Tax to pay the principal of and interest on the Series 2019 Bonds, or in any way contesting or affecting the validity or enforceability of the Series 2019 Bonds, the Fiscal Agent Agreement, the Bond Purchase Contract entered into between the City and the Underwriter, or any other applicable agreements or any action of the City contemplated by any of said documents, or in any way contesting the completeness or accuracy of this Official Statement or any amendment or supplement thereto, or contesting the powers of the City or its authority with respect to the Series 2019 Bonds or any action of the City contemplated by any of said documents, nor, to the knowledge of the City, is there any basis therefor.

NO RATING

The City has not made and does not contemplate making an application to any rating agency for the assignment of a rating to the Series 2019 Bonds. There can be no guarantee that there will be a secondary market for the Series 2019 Bonds or, if a secondary market exists, that such Bonds can be sold for any particular price. Occasionally, because of general market conditions or because of adverse history or economic prospects connected with a particular issue, secondary marketing practices in connection with a particular issue are suspended or terminated. Additionally, prices of issues for which a market is being made will depend upon then prevailing circumstances. Such prices could be substantially different from the original purchase price.

MUNICIPAL ADVISOR

Del Rio Advisors, LLC, Modesto, California, has served as Municipal Advisor to the City with respect to the sale of the Series 2019 Bonds. The Municipal Advisor has assisted the City in the review of this Official Statement and in other matters relating to the planning, structuring, execution and delivery of the Series 2019 Bonds. The Municipal Advisor has not independently verified any of the data prepared by others and assumes no responsibility for the accuracy or completeness of any of the information contained herein.

The Municipal Advisor provides municipal advisory services only and does not engage in the underwriting, marketing, or trading of municipal securities or other negotiable instruments. The Municipal Advisor will receive compensation from the City contingent upon the sale and delivery of the Series 2019 Bonds.

UNDERWRITING

The Series 2019 Bonds are being purchased by Piper Jaffray & Co. (the “Underwriter”). The Underwriter has agreed, subject to certain conditions precedent, to purchase the Series 2019 Bonds from the City pursuant to the terms and condition of a bond purchase contract between the City and the Underwriter at a purchase price equal to \$_____, which represents the principal amount of the Series 2019 Bonds, [plus a net original issue premium / less a net original issue discount] in the amount of \$_____, less an Underwriter’s discount in the amount of \$_____. The Bond Purchase Agreement relating to the Series 2019 Bonds provides that the Underwriter will purchase all of the Series 2019 Bonds if any are purchased, the obligation to make such purchase being subject to certain terms and conditions set forth in said bond purchase agreement, the approval of certain legal matters by counsel and certain other conditions.

The Series 2019 Bonds may be offered and sold to certain dealers and others at prices lower than the offering prices stated on the inside cover hereof. The offering prices may be changed from time to time.

CONTINUING DISCLOSURE

The City has covenanted for the benefit of the Owners to provide certain financial information and operating data relating to the Series 2019 Bonds by not later seven months following the end of the City’s Fiscal Year (which currently would be June 30) commencing with the report for the 2017-18 Fiscal Year due January 31, 2019 (the “Annual Report”), which will be satisfied by filing this Official Statement and the audited financial statements of the City, and to provide notices of the occurrence of certain significant events. The Annual Report and notices of significant events will be filed by means of the EMMA site maintained by the MSRB. The specific nature of the information to be contained in the Annual Report or the notices of significant events is contained within APPENDIX F—“FORM OF CONTINUING DISCLOSURE CERTIFICATE.” These covenants have been made in order to assist the Underwriter in complying with S.E.C. Rule 15c2-12(b)(5).

In the past five years, the City filed its Annual Reports, but did fail on occasion to timely file certain updated annual operating information for the City, including the adopted budgets for Fiscal Year 2012-13. The City filed all required notices by February 24, 2014 and established procedures, including adding the Trustee as a party for receipt of the Annual Report and notices of significant events, and commencing in Fiscal Year 2013-14, including certain tabular data with respect to the Wastewater and Water Systems in the statistical section of the City’s financial statements, that the City believes will be sufficient to ensure timely future compliance with its continuing disclosure undertakings.

Delayed Delivery of City’s Audited Financial Statements for Fiscal Years 2012-13 through 2014-15. In spring 2014, the City’s contracted auditor for Fiscal Year 2012-13 (the “Former Auditor”) completed the field work necessary to deliver the audited financial statements for that Fiscal Year. However, the Former Auditor delivered the audited financial statements in February 2015.

In January 2014, the City Council authorized staff to issue a Request for Proposal to select new independent auditors for the City. The Former Auditor had been the City's auditor for seven years and there had been increasing difficulties in scheduling the annual audits, completing fieldwork, and timely preparing the final report and distribution of audited financial statements. Following receipt of proposals and an interview process, the firm of Davis Farr LLP ("Davis Farr") was selected and awarded a contract in June 2014, commencing with the audit for Fiscal Year 2013-14. Due to the delay in the completion of the Fiscal Year 2012-13 audit by the Former Auditor, Davis Farr was unable to begin work on the Fiscal Year 2013-14 until after February 2015, subsequently resulting in a delay on the Fiscal Year 2014-15 audit. The Fiscal Year 2016-17 audit was filed late due to a conflict by Davis Farr in scheduling internal training and the field audit for the City. The City and Davis Farr have agreed upon a revised schedule for completing the field audit to accommodate their internal training and permit the audit to be completed.

As of the date of this Official Statement, the City is current in the filing of its audited financials. The table below summarizes the dates on which the audited financial statements were filed for each Fiscal Year.

Summary of Filing Dates for the Audited Financial Statements

<u>Fiscal Year</u>	<u>Date Filed</u>	<u>No. of Days After Filing Deadline</u>
2011-12	October 15, 2013	623
2012-13	February 13, 2015	378
2013-14	January 15, 2016	349
2014-15	August 22, 2016	234
2015-16	January 26, 2017	0
2016-17	February 15, 2018	15

During the previous five Fiscal Years, the operating data for each Fiscal Year was timely filed.

Other Instances of Non-Compliance. The City also failed to timely file the Fiscal Year 2015-16 budgets for its water and wastewater enterprises and notices of Moody's ratings upgrades on insured Redevelopment Agency of the City of Woodland, Woodland Redevelopment Project Tax Allocation Bonds, Series 2007. Remedial filings were made on September 20, 2016.

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MISCELLANEOUS

This Official Statement is not to be construed as a contract or agreement between the City or the District and the Underwriter of the Series 2019 Bonds. Any statements made in this Official Statement involving matters of opinion or of estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized. The information and expressions of opinion herein are subject to change without notice and neither the delivery of the Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the City or the District since the date hereof.

References are made herein to certain documents and reports which are brief summaries thereof which do not purport to be complete or definitive and reference is made to such documents and reports for full and complete statements of the contents thereof. Copies of such documents and reports are available for inspection at the office of the Finance Officer of the City, City of Woodland, City Hall, 300 First Street, Woodland, California 95695.

The execution and delivery of the Official Statement by the City has been duly authorized by the City Council.

CITY OF WOODLAND

By: _____
Paul Navazio
City Manager

APPENDIX A

GENERAL AND ECONOMIC INFORMATION FOR THE CITY OF WOODLAND

The following information concerning the City of Woodland (the “City”) and the County of Yolo (the “County”) is included only for the purpose of supplying general information. The Series 2019 Bonds are not a debt of the City, the County, or the State of California (the “State”) or any of its political subdivisions. The Series 2019 Bonds are payable solely from the Special Tax as described in the Official Statement. See “SECURITY AND SOURCES OF PAYMENT FOR THE 2019 BONDS.”

Overview

The City is located in the County approximately 81 miles northeast of San Francisco and approximately 20 miles northwest of Sacramento at the intersection of Interstate 5 and State Route 113. The City has been the seat of government for the County since 1862 and is the industrial and agricultural center of the County. The City encompasses approximately 14.5 square miles near the center of the California’s Central Valley. Woodland enjoys a mean temperature of 61.5 degrees and an annual average rainfall of 17.28 inches.

The City has a diversified economic base that has its origins in agriculture. However, due to the proximity of the City to major transportation arteries (Interstate 5 and State Route 113), and major waterways, the City has also become increasingly important as a manufacturing and distribution center of products including, food processing, plastics, farm machinery and mobile homes.

City Government

The City was incorporated in 1871 and operates as a general law city as provided by the Constitution and laws of the State. The City is governed by a five-member City Council, each of whom is elected for four-year terms. Prior to 2016, members of the City Council were elected City-wide. In 2014, a majority of the voters approved Measure U authorizing elections of City Council members by district commencing with the election of City Council members for Districts 2, 4, and 5 on November 8, 2016. The transition to district elections were completed when elections for Districts 1 and 3 were held on November 6, 2018. Council elections are held in even-numbered years, with terms staggered such that two council seats are open for election in one year with the other three seats open for election two years later.

Prior to Measure U, the City Council selected a Mayor every two years following the election and seating of new Councilmembers with the Councilmember who received the greatest number of votes in the most recent general municipal election at which councilmembers are elected is designated as the Mayor Pro Tempore, or Vice Mayor. Effective in 2018, the Mayor, who will continue to be selected by the Councilmembers, will serve a one-year term and the office of will rotate among the Councilmembers annually thereafter.

The City operates on a Council/Manager system of government. The City Council appoints the City Manager, who is responsible for daily administration of City affairs and preparation and submission of the annual budget under the direction of the Mayor and City Council. Members of the Council and key administrative personnel of the City are listed in Table A-1 and Table A-2, respectively:

**Table A-1
City of Woodland
City Council Members**

<u>Member</u>	<u>Position</u>	<u>Term Expires</u>
Enrique Fernandez, District 4	Mayor	November 2020
Xóchitl Rodriguez, District 5	Mayor Pro Tempore	November 2020
Angel Barajas, At Large ⁽¹⁾⁽²⁾	Member	November 2018
Marlin H. "Skip" Davies, At Large ⁽¹⁾⁽³⁾	Member	November 2018
Tom Stollard, District 2	Member	November 2020

(1) Elected prior to passage of Measure U.

(2) Elected by the voters of District 3 to a four-year term at the November 6, 2018 election and will be sworn into office on December [3], 2018.

(3) Richard Lansburgh was elected by the voters of District 1 to a four-year term at the November 6, 2018 election and will be sworn into office on December [3], 2018.

**Table A-2
City of Woodland
Key Administrative Personnel**

<u>Member</u>	<u>Position</u>
Enrique Fernandez	Mayor
Paul Navazio	City Manager
Kara K. Ueda	City Attorney
Kimberly McKinney	Finance Officer
Craig Locke	Interim Public Works Director
Ana B. Gonzalez	City Clerk

The City provides a full range of services delegated to cities under State law. These services include public safety (police and fire), sanitation and environmental health enforcement, recreational and cultural activities, public improvements, planning, zoning and general administrative services. Budgeted City full-time employees number 203 for Fiscal Year 2018-19, all of which were full-time permanent employees. Of the full-time employees, 83 are assigned to the Police Department and 47 to the Fire Department. Fire protection service is provided by the City, which has three stations within its borders.

Population

The City is the second most populous in the County. Since 2010, the City's population increased by a total of 4,958 or approximately 8.9%. Between 2014 and 2018, it is estimated that population has grown by 3,642 or an annual average of approximately 1.3%. Table A-3 illustrates the estimated population of the City, the County, and the State for 2010 and as of January 1, 2014 through January 1, 2018.

Table A-3
City, County and State Population Estimates
2010 and 2013 through 2017
(As of January 1)

<u>Year</u>	<u>City</u>	<u>Yolo County</u>	<u>State</u>
2010 [†]	55,468	200,849	37,253,956
2014	56,784	208,961	38,357,121
2015	57,401	211,813	38,907,642
2016	58,615	215,522	39,189,035
2017	59,863	218,673	39,500,973
2018	60,426	221,270	39,809,683

[†] Decennial Census.

Sources: U.S. Census Bureau for the decennial census and State of California, Department of Finance, E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change for January 1, 2013 and 2014 through January 1, 2017 and 2018. Sacramento, California, May 2018.

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Industry and Employment

The following Table A-4 compares estimates of the labor force, civilian employment, and unemployment for City residents, County residents, State residents, and United States residents between 2013 and 2017. For September 2018, the preliminary estimated unemployment rate (not seasonally adjusted) for the City was 3.8%, for the County was 3.5%, for the State was 3.9%, and for the United States was 3.7%.

Table A-4
Estimates of Civilian Labor Force, Employment, and Unemployment
Annual Average for Calendar Years 2013 through 2017
(Not Seasonally Adjusted)

<u>Year and Area</u>	<u>Labor Force</u>	<u>Employment</u>	<u>Unemployment</u>	<u>Unemployment Rate</u>
2017				
City	31,100	28,400	1,600	5.4%
County	107,000	101,600	5,400	4.0
State	19,312,000	18,393,100	918,900	4.8
United States	160,320,000	153,337,000	6,982,000	4.4
2016				
City	29,800	28,000	1,800	6.1%
County	106,300	100,100	6,100	5.8
State	19,102,700	18,065,000	1,037,700	5.4
United States	159,187,000	151,436,000	7,751,000	4.9
2015				
City	29,400	27,400	2,000	6.8
County	104,700	98,000	6,700	6.4
State	18,981,770	17,798,614	1,183,156	6.2
United States	157,130,000	148,834,000	8,296,000	5.3
2014				
City	28,900	26,600	2,300	8.0
County	102,400	94,700	7,700	7.5
State	18,811,400	17,397,100	1,414,300	7.5
United States	155,922,000	146,305,000	9,617,000	6.2
2013				
City	28,800	26,000	2,700	9.5
County	101,800	92,700	9,200	9.0
State	18,671,600	17,002,900	1,668,700	8.9
United States	155,389,000	143,929,000	11,460,000	7.4

Sources: United States Department of Labor, Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey; State of California, Employment Development Department, State Employment Development Department, Labor Market Information Division.

Research and Technology Park Specific Plan. In June 2017, the City Council adopted a Research and Technology Park Specific Plan to develop an approximately 350-acre mixed use, state-of-the-art innovation center campus for high-technology offices, research and development, hotel, retail and recreational uses, residential, and parks and open space. This Specific Plan area, located in the southern part of the City, approximately seven miles from the City of Davis, is designed, to, among other things, (i) accommodate advanced technology-related jobs and training that allow a greater number of City residents and college graduates from the Woodland Community College to live and work in the community; (ii) collaborate with UC Davis, Woodland Community College, and others to capture technology transfer to startup businesses and growing mid-to-large size companies, reducing the loss of intellectual capital and revenue through regional out-migration; (iii) create and support the seed, food, and agricultural-based industry currently doing business in and around the City; and (iv) contribute to meeting City goals for greenhouse gas reduction by 2035 contained in its 2035 CAP. For a description of the 2035 CAP, see “CERTAIN RISKS TO BONDOWNERS AND INVESTMENT CONSIDERATIONS–Climate Change.”

The City has begun the process of preparing an Environmental Impact Report (an “EIR”). Timing of development will depend on a number of factors, in particular market conditions and the feasible rate at which new development can be absorbed in the City. The Specific Plan, EIR, and annexation processes are anticipated to be complete in late 2019. Development can commence following completion of those processes.

Principal Employers

Table A-5 represents the principal public and private employers in the City.

Table A-5
City of Woodland
Ten Largest Employers
As of June 30, 2018
[City to Update]

<u>Public Entity</u>	<u>Product/Service</u>	<u>Estimated Number of Employees</u>	<u>% Total City Employment</u>
Yolo County	County Government	1,411	4.99%
Dayton Hudson (Target)	Discount Store Retailer	1,337	4.72
Woodland Joint Unified School District	School District	1,145	4.05
Target Distribution Center	Distribution Services	800	2.83
Woodland Healthcare	Hospitals	725	2.56
Raley’s/Bel Air	Grocery Store	600	2.12
Rite Aid Distribution Center	Warehouses-Private and Public	500	1.77
Nugget Markets/Food 4 Less	Discount Grocery Store	350	1.24
Walgreens	Pharmacies	300	1.06
City of Woodland	City Government	289	1.02
Subtotal		7,457	26.37%

Source: City of Woodland, Community Development Department.

Construction Activity

The following tables provide a summary of residential building permit valuations and nonresidential building permit valuations, and the total number of all building permit valuations in the City during the past five calendar years.

Table A-6
City of Woodland
Building Permit Valuation
Calendar Years 2013 through 2017
(\$ in Thousands)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
New Single-Family	\$26,808.5	\$39,854.2	\$46,381.2	\$80,090.8	\$36,774.4
New Multi-Family	6,525.4	0.0	0.0	0.0	8,260.4
Res. Alterations/Additions	<u>2,874.9</u>	<u>3,287.1</u>	<u>3,544.8</u>	<u>4,086.1</u>	<u>3,119.7</u>
TOTAL RESIDENTIAL	36,208.8	43,141.3	49,926.0	84,176.9	48,154.5
 New Commercial	 7,625.5	 2,363.0	 11,249.7	 6,648.7	 18,347.3
New Industrial	1,286.2	2,425.5	410.5	1,214.1	1,609.3
New Other	4,559.6	1,192.6	3,712.9	1,927.6	2,302.1
Com Alterations/Additions	<u>8,700.9</u>	<u>6,987.1</u>	<u>6,637.0</u>	<u>5,607.2</u>	<u>10,465.6</u>
TOTAL NONRESIDENTIAL	\$22,172.2	\$12,968.2	\$22,010.2	\$15,397.0	\$32,724.3
 <u>New Dwelling Units</u>					
Single-Family	98	128	153	271	130
Multi-Family	<u>62</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>
TOTAL	161	128	153	271	132

Sources: Construction Industry Research Board, Building Permit Summary for Calendar Years 2013 through 2017.

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Agriculture

The City's economic base includes manufacturing, warehousing, retail, and agriculture. Table A-7 lists the top leading agricultural crops within the County for the past five calendar years.

Table A-7
County of Yolo
Ten Leading Crops for Calendar Years 2012 through 2016†
(\$ in 000's)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016†</u>
Processing Tomatoes	\$111,567	\$107,881	\$151,714	\$139,135	\$121,513
Almonds (Meats)	41,412	69,361	107,409	89,300	99,234
Wine Grapes (All)	66,293	69,493	68,960	70,462	81,264
Organic Production (All)	40,162	60,112	52,383	51,173	58,863
Rice ⁽¹⁾	60,012	62,738	69,202	36,000	43,016
Sunflower Seed	23,218	27,997	28,291	36,059	34,354
Walnuts	49,284	62,669	70,083	36,782	34,176
Hay, Alfalfa	51,446	52,657	55,246	35,078	23,290
Nursery (All) ⁽²⁾	(3)	(3)	(3)	13,277	18,303
Cattle and Calves	(3)	(3)	20,327	20,610	15,730
Wheat	20,435	19,816	(3)	(3)	(3)
Field Corn	<u>29,796</u>	<u>23,461</u>	(3)	(3)	(3)
TOTAL TEN LEADING CROPS	493,625	556,185	637,298	527,876	529,743
Other Crops	<u>145,593</u>	<u>165,451</u>	<u>159,665</u>	<u>136,862</u>	<u>132,649</u>
TOTAL	\$639,218	\$721,636	\$796,963	\$664,738 ⁽⁴⁾	\$662,392
Percent 10 Leading Crops of					
Total Production	77.2%	77.1%	79.9%	79.4%	79.9%

† The most recent annual data available.

(1) Includes seed. Values include federal Rice Payments.

(2) Includes bareroot, benchcraft, budwood, container stock, cuttings, organic transplants, transplants, and trees.

(3) Not among the 10 leading crops for this calendar year.

(4) Corrected gross value.

Source: Yolo County Department of Agriculture.

Personal Income

The United State Department of Commerce, Bureau of Economic Analysis (the "BEA") produces economic accounts statistics that enable government and business decision-makers, researchers, and the public to follow and understand the performance of the national economy.

The BEA defines "personal income" as income received by persons from all sources, including income received from participation in production as well as from government and business transfer payments. Personal income represents the sum of compensation of employees (received), supplements to wages and salaries, proprietors' income with inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj), rental income of persons with CCAdj, personal income receipts on assets, and personal current transfer receipts, less contributions for government social insurance. Per capita personal income is calculated as the personal income divided by the resident population based upon the Census Bureau's annual midyear population estimates.

Table A-8 below presents the latest available total personal income and per capita buying income for the County, the State, and the nation for the calendar years 2013 through 2017.

**Table A-8
County of Yolo
Personal Income
2013-2017[†]**

<u>Year and Area</u>	<u>Total Personal Income (millions of dollars)</u>	<u>Per Capita Personal Income (dollars)⁽¹⁾</u>
2017		
County	\$ _____	\$ _____
State	2,364,129	59,796
United States	16,820,250	51,640
2016		
County	10,759	49,854
State	2,212,691	56,374
United States	15,912,777	49,246
2015		
County	10,376	49,893
State	2,133,664	54,718
United States	15,547,611	48,451
2014		
County	9,802	46,958
State	1,986,026	51,344
United States	14,811,388	46,464
2013		
County	9,221	44,615
State	1,861,957	48,570
United States	14,068,960	44,493

[†] Per capita personal income was computed using Census Bureau midyear population estimates. Estimates for 2010-2017 reflect county population estimates available as of December 2017.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, March 28, 2017. Last updated September 25, 2018, revised statistics for 1998-2017.

Transportation

The County has a well-developed transportation network which includes road, rail, and shipping services. Interstate 80, a transcontinental highway linking San Francisco with points east is nine miles to the south of Woodland via State Route 113. Interstate 5, a transcontinental North-South route, and State Routes 113 and 16 intersect in the City.

Southern Pacific/Union Pacific railroad crosses the County with its main line generally paralleling Interstate 80, with trunk lines running into adjoining counties. Union Pacific has connecting track from Sacramento to Woodland. Freight transportation is also provided by several intra-state and transcontinental trucking firms. Waterborne facilities are available through the Sacramento-Yolo Port District immediately to the south of the City. Ships can reach Sacramento from San Francisco Bay in less than eight hours.

The Sacramento Metropolitan Airport is located approximately 12 miles south of the City and is served by most major carriers as well as commuter carriers. Service is available to all principal cities on the West Coast as well as direct flights to other major cities in the United States.

Education and Community Services

Education. Public school education is provided by the Woodland Joint Unified School District's three infant-toddler programs, eight pre-schools, one elementary school (transitional kindergarten through grade 6), 11 elementary schools (kindergarten through grade 8), two middle schools (grades 7 and 8), two senior high schools (grades 9 through 12), one continuation high school, and one adult school. In addition, there are schools maintained by the County Superintendent of Schools for handicapped, Juvenile Court and occupational and vocational training students. There are also four religious schools offering elementary and secondary education.

Woodland Community College, a two year college within the Yuba Community College District, has a campus for 1,200 full-time and 1,800 part-time students within the City. It features a well-regarded Vocational Nursing Program along with strong agri-business and business departments.

The University of California, Davis ("UC Davis") is located 10 miles to the south via State Route 113 on the Solano-Yolo County line in the northeast corner of Solano County. UC Davis is well known for its agricultural research. Originally a university farm, the campus developed into a four-year agricultural college in the 1920's and has since expanded into other fields, including engineering, law, medicine and veterinary medicine. The current enrollment at UC Davis is over 30,000 students.

Community Services. Cultural facilities in the City and surrounding area include the Woodland Opera House, the Sacramento Community Center, the Sacramento Music Circus and the Mondavi Center on the University of California, Davis campus. The Carnegie City Library has space for approximately 100,000 volumes.

Local newspaper coverage is provided by the *Daily Democrat* which is published seven times a week. Financial institutions located in the City include eight banks and four savings and loans.

The Community Services Department of the City (formerly the Park & Recreation Department) maintains more than 187 acres of recreational parks athletic fields and open spaces; including approximately 30 parks, the approximately 40,000 square foot Community Center, Senior Center and Sports Complex (the "Community Center").

The Community Center and consists of an approximately 40,000 square foot building on an approximately 44 acre site, that includes a gymnasium, professional kitchen, banquet facilities, a regulation lighted synthetic softball field and a synthetic soccer field. The Community Center includes an approximately 2,200 square foot youth center, featuring a media room and computer center, and an approximately 4,500 square foot senior center, that features social and recreational programs, as well as health, wellness and supportive services for seniors in the community, including the meals on wheels program and federal commodities distribution. The City's Community Services Department offices are also located in this facility.

The approximately 460 acres of parkland offers a variety of recreational facilities which include a senior citizens center, a youth center, a gymnasium, two public swimming pools, athletic fields, and a facility for large meetings and activities.

The City is served by Woodland Memorial Hospital, a 108-bed general acute care hospital which is part of the Woodland Healthcare network, an affiliate of Dignity Health, which also includes the Woodland Clinic Medical Group and Woodland Healthcare-Davis and provides health services to Woodland, Davis, and other proximate communities.

Property Taxation

Ad Valorem Property Taxes. City property taxes are assessed and collected by the County of Yolo (the "County") at the same time and on the same rolls as are County, school and special district property taxes. The County is permitted under State law to pass on costs for certain services provided to local government agencies including the collection of property taxes. The County imposed a fee on the City of approximately 1.5% of taxes collected for tax collection services provided in Fiscal Year 2017-18, and the fee for Fiscal Year 2018-19 is also approximately 1.5%.

Assessed Valuations. All property is assessed using full cash value as defined by Article XIII A of the State Constitution. State law provides exemptions from *ad valorem* property taxation for certain classes of property such as churches, colleges, nonprofit hospitals and charitable institutions.

Future assessed valuation growth allowed under Article XIII A (new construction, certain changes of ownership, 2% inflation) will be allocated on the basis of "situs" among the jurisdictions that serve the tax rate area within which the growth occurs. Local agencies and schools will share the growth of "base" revenues from the tax rate area. Each year's growth allocation becomes part of each agency's allocation in the following year. The availability of revenue from growth in tax bases to such entities may be affected by the establishment of redevelopment agencies which, under certain circumstances, may be entitled to revenues resulting from the increase in certain property values.

The passage of Assembly Bill 454 in 1987 changed the manner in which unitary and operating nonunitary property is assessed by the State Board of Equalization. The legislation deleted the formula for the allocation of assessed value attributed to such property and imposed a State-mandated local program requiring the assignment of the assessment value of all unitary and operating non-unitary property in each county of each State assessee other than a regulated railway company. The legislation established formulas for the computation of applicable county-wide rates for such property and for the allocation of property tax revenues attributable to such property among taxing jurisdictions in the county beginning in Fiscal Year 1988-89. This legislation requires each County to issue each State assessee, other than a regulated railway company, a single tax bill for all unitary and operating nonunitary property.

Table A-9 represents a five-year history of assessed valuations in the City:

Table A-9
City of Woodland
Assessed Valuations
(\$ in \$000's)

<u>Fiscal Year</u>	<u>Total Local Secured and Unsecured[†]</u>	<u>% Change</u>
2012-13	4,251,007	(1.3%)
2013-14	4,330,894	1.9
2014-15	4,741,038	9.5
2015-16	5,064,767	6.8
2016-17	5,319,026	5.0
2017-18	5,670,053	6.2
2018-19	6,000,245	5.8

[†] The City does not impose any utility taxes.

Source: Yolo County Assessor's and Auditor's Office.

Principal Property Taxpayers

A summary of the City's Fiscal Year 2018-19 largest secured taxpayers is presented in Table A-10 below:

Table A-10
City of Woodland
Top Ten Secured Taxpayers
Fiscal Year 2018-19

<u>Tax Payer</u>	<u>Type of Business</u>	<u>2018-19 Assessed Valuation</u>	<u>% Total Assessed Valuation</u>
Dayton Hudson Corp.	Distribution Facility		
Walgreen Company	Distribution Facility		
Pacific Coast Producers	Canned Food Producer		
Tao Logistics LLC	Logistics Company		
Payless Drug Stores Northwest	Pharmacy		
Costco Wholesale	Wholesale Distributor		
Woodland Development Co.	Development Company		
Target Corporation	Retail		
Autumn Run Investors	Investment		
Generation Industrial II LLC	Aerospace and Industrial Power		
SUBTOTAL			
All Others			
TOTAL SECURED ASSESSED VALUE		\$5,758,173,790	100.00%

Source: Yolo County Assessor's Office.

APPENDIX B

RATE, METHOD OF APPORTIONMENT AND MANNER OF COLLECTION OF SPECIAL TAX

APPENDIX C
APPRAISAL OF REAL PROPERTY

APPENDIX D
ABSORPTION STUDY

APPENDIX E

SUMMARY OF CERTAIN PROVISIONS OF THE FISCAL AGENT AGREEMENT

The following is a summary of selected provisions of the Fiscal Agent Agreement that are not described elsewhere in this Official Statement. This summary does not purport to be comprehensive and reference should be made to the Fiscal Agent Agreement for a full and complete statement of its provisions. All capitalized terms not defined in this Official Statement have the meanings set forth in the Fiscal Agent.

APPENDIX F

FORM OF CONTINUING DISCLOSURE CERTIFICATE

This Continuing Disclosure Certificate (the “Disclosure Certificate”), is executed and delivered by the City of Woodland (the “City”), in connection with the execution and delivery by the City of \$____,000 principal amount City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Bonds, Series 2019 (Capital Projects) (the “Series 2019 Bonds”). The Series 2019 Bonds are being issued pursuant to the Mello-Roos Community Facilities Act of 1982, as amended, constituting Chapter 5, Division 2 Title 1 of the Government Code of the State of California and a Fiscal Agent Agreement dated October 1, 2013, as amended and supplemented by a First Supplemental Fiscal Agent Agreement dated November 1, 2016, and a Second Supplemental Fiscal Agent Agreement dated January 1, 2019 (collectively, the “Fiscal Agent Agreement”) each by and between the City and U.S. Bank National Association, as Fiscal Agent. The Series 2019 Bonds are secured by the Special Tax as described in the Fiscal Agent Agreement. The City covenants and agrees as follows:

SECTION 1. Purpose of the Disclosure Certificate. This Disclosure Certificate is being executed and delivered by the City for the benefit of the Beneficial Owners of the Series 2019 Bonds and in order to assist the Participating Underwriter in complying with S.E.C. Rule 15c2-12(b)(5).

SECTION 2. Definitions. In addition to the definitions set forth in the Fiscal Agent Agreement, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“*Annual Disclosure Report*” shall mean any Annual Disclosure Report provided by the City pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

“*Beneficial Owner*” shall mean any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Bonds for federal income tax purposes.

“*Disclosure Representative*” shall mean the Finance Officer of the City or such other official as may be designated in writing to the Dissemination Agent (if other than the City) from time to time.

“*District*” shall mean the City of Woodland Community Facilities District No. 2004-1 (Spring Lake).

“*Dissemination Agent*” shall mean initially Goodwin Consulting Group, Inc., acting in its capacity as Dissemination Agent hereunder, or any successor Dissemination Agent designated in writing by the City and which has filed with the City written evidence of such designation.

“*EMMA*” means the Electronic Municipal Marketplace Access site maintained by the MSRB, currently located at <http://emma.msrb.org>.

“*Filing Date*” shall mean no later than seven months following the end of each Fiscal Year of the City (or the next succeeding business day if such day is not a business day), commencing with the filing for Fiscal Year 2017-18 due January 31, 2019, which will be satisfied by filing the Official Statement and the audited financial statements of the City.

“*Fiscal Year*” shall mean with respect to the City, the period beginning on July 1 of each year and ending on the next succeeding June 30, or any 12-month or 52-week period thereafter selected by the City with notice of such selection of change in fiscal year to be provided as set forth in Section 3(a).

“*Holders*” shall mean either the registered owners of the Series 2019 Bonds, or, if the Series 2019 Bonds are registered in the name of The Depository Trust Company or another recognized depository, any applicable participant in its depository.

“*MSRB*” means the Municipal Securities Rulemaking Board, which has been designated by the Securities and Exchange Commission as the sole repository of disclosure information for purposes of the Rule, or any other repository of disclosure information that may be designated by the Securities and Exchange Commission as such for purposes of the Rule in the future.

“*Official Statement*” means the Official Statement dated _____, 2019 relating to the Series 2019 Bonds.

“*Participating Underwriter*” shall mean the Piper Jaffray & Co., the original underwriter of the Series 2019 Bonds required to comply with the Rule in connection with offering of the Series 2019 Bonds.

“*Rule*” shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

“*Significant Event*” shall mean any of the events listed in Section 5(a) or Section 5(b) of this Disclosure Certificate and any other event legally required to be reported pursuant to the Rule.

SECTION 3. Provision of Annual Disclosure Reports.

(a) The City shall provide, or shall cause the Dissemination Agent to provide to the MSRB, not later than the Filing Date, an Annual Disclosure Report that is consistent with the requirements of Section 4 of this Disclosure Certificate. The Annual Disclosure Report shall be submitted in electronic format, accompanied by such identifying information as is prescribed by the MSRB. The Annual Report may be submitted as a single document or as separate documents comprising a package, and may include by reference other information as provided in Section 4 of this Disclosure Certificate; provided that the audited financial statements of the City may be submitted separately from the balance of the Annual Report, and later than the Annual Report Date, if not available by that date. If the Fiscal Year of the City changes, it shall give notice of such change in the same manner as for a Significant Event under this Disclosure Certificate. The City shall provide a written certification with each Annual Report furnished to the Dissemination Agent to the effect that such Annual Report constitutes the Annual Report required to be furnished by the City hereunder.

(b) Not later than fifteen (15) Business Days prior to the Filing Date, the City shall provide the Annual Disclosure Report to the Dissemination Agent (if other than the City). The City shall provide, or cause the preparer of the Annual Disclosure Report to provide, a written certificate with each Annual Disclosure Report furnished to the Dissemination Agent to the effect that such Annual Disclosure Report constitutes the Annual Disclosure Report required to be furnished to it hereunder. The Dissemination Agent may conclusively rely upon such certification and shall have no duty or obligation to review such Annual Disclosure Report.

(c) If the City is unable to provide to the Annual Disclosure Report to the MSRB by the date required in subsection (a), the City shall send a notice to the MSRB in substantially the form attached as Exhibit A.

(d) The Dissemination Agent shall:

1. If not previously filed by the City, send a notice to the MSRB in substantially the form attached as Exhibit A, if the City is unable to provide to the Annual Disclosure Report to the MSRB by the date required in subsection (a).

2. File a report with the City certifying that the Annual Disclosure Report has been provided pursuant to this Disclosure Certificate, stating the date it was provided.

SECTION 4. Content of Annual Disclosure Reports. The Annual Disclosure Report shall contain or include by reference the following:

(a) The audited financial statements of the City for the prior Fiscal Year prepared in accordance with generally accepted accounting principles in effect from time to time by the Governmental Accounting Standards Board to apply to governmental entities. If the audited financial statements are not available by the time the Annual Disclosure Report is required to be filed pursuant to Section 3(a), the Annual Disclosure Report shall contain unaudited financial statements in a format similar to the financial statements contained in the Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Disclosure Report when they become available.

The audited financial statements of the City are provided solely to comply with the interpretation by Securities and Exchange Commission staff of the Rule. No funds or assets of the City are required to be used to pay debt service on the Series 2019 Bonds, and the City is not obligated to advance available funds to cover any delinquencies. Investors should not rely on the financial condition of the City in evaluating whether to buy, hold or sell the Series 2019 Bonds.

(b) The following information with respect to the Series 2019 Bonds and the District:

1. The principal amount of the Bonds of each Series outstanding, a maturity schedule for the outstanding Bonds of each Series, and a listing of Bonds of each Series redeemed prior to maturity during the prior Fiscal Year.

2. The balances in each of the following funds and accounts established by the Fiscal Agent Agreement as of June 30 of the preceding Fiscal Year and as of September 30 of the current Fiscal Year:

(i) the Special Tax Fund (with a statement of the debt service requirement to be discharged by the Special Tax Fund prior to the receipt of additional Special Taxes);

(ii) the Bond Reserve Fund (with a statement of the current Bond Reserve Requirement); and

(iii) the Acquisition and Construction Account.

3. Identification of each parcel for which any installment is due and unpaid Special Tax is delinquent, together with the following information respecting each such parcel for the prior Fiscal Year:

(i) the amount delinquent (exclusive of late charges and monthly penalties for reinstatement);

- (ii) the date (December 10 or April 10) of the first delinquency;
- (iii) in the event a foreclosure complaint has been filed respecting such delinquent parcel and such complaint has not yet been dismissed, the date on which the complaint was filed in the Superior Court; and
- (iv) in the event a foreclosure sale has occurred respecting such delinquent parcel, a summary of the results of such foreclosure sale.
- (v) the identity of any delinquent taxpayer representing more than 5% of the Special Tax payable, or more than 5% of the of property within the District (using the most recent assessed value, unless more accurate information is available).

4. Total assessed value of all of the parcels subject to the Special Tax and the individual lien-to-value ratio for parcels in the following categories: “City Parcels” “0:0 to 1:1,” “1:1 to 3:1,” “3:1 to 5:1,” “5:1 to 10:1,” “10:1 to 15:1,” “15:1 to 20:1” or “above 20:1,” in a format substantially similar to Table 8 in the Official Statement.

5. Actual Special Tax levy for the most recent Fiscal Year, the Maximum Special Tax for the most recent Fiscal Year in a format substantially similar to Table 6A-2 in the Official Statement, excluding data regarding “Future BUA Release Property,” “Property Outside District and Within the Spring Lake Specific Plan Area,” overlapping general fund debt, and property assessed clean-energy (PACE) liens.

6. Identity of any delinquent tax payer obligated for more than 10% of the annual Special Tax levy and:

- (i) assessed value of applicable properties, and
- (ii) summary of results of foreclosure sales, if available.

7. The number of building permits issued for property in the District for the most recent Fiscal Year and the aggregate number of building permits issued for the District.

8. Significant amendments to land use entitlements for property in the District known to the Finance Officer for the most recent Fiscal Year.

9. Status of any significant legislative, administrative, and judicial challenges to the construction of the development in the District known to the Finance Officer without independent inquiry, for any year in which construction activity has occurred in the District.

(c) To the extent not otherwise provided pursuant to the preceding items 4(b)1- 4(b)8, annual information required to be filed by the City for the District with the California Debt and Investment Advisory Commission pursuant to Sections 50075.1, 50075.3, 53359.5(b), 53410(d) or 53411 of the California Government Code.

(d) The presentation and format of the Annual Disclosure Reports may be modified from time to time as determined in the judgment of the City to conform to changes in accounting or disclosure principles or practices and legal requirements followed by or applicable to the City to reflect changes in the business, structure, operations, legal form of the City or any mergers, consolidations, acquisitions or

dispositions made by or affecting the City; provided that any such modifications shall comply with the requirements of the Rule.

Any or all of the items listed above may be included by specific reference to other documents, including official statements of debt issues of the City or related public entities, which have been made available to the public on the MSRB website. The City shall clearly identify each such other document so included by reference.

SECTION 5. Reporting of Significant Events.

(a) Pursuant to the provisions of this Disclosure Certificate, the City shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Series 2019 Bonds not later than ten (10) business days after the occurrence of the event:

1. Principal and interest payment delinquencies;
2. Unscheduled draws on debt service reserves reflecting financial difficulties;
3. Unscheduled draws on credit enhancements reflecting financial difficulties;
4. Substitution of credit or liquidity providers, or their failure to perform;
5. Issuance by the Internal Revenue Service of proposed or final determination of taxability or of a Notice of Proposed Issue (IRS Form 5701 TEB);
6. Tender offers;
7. Defeasances;
8. Rating changes; or
9. Bankruptcy, insolvency, receivership or similar event of the City or other obligated person.

Note: This event is considered to occur upon the happening of any of the following: the appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governmental body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.

(b) The City shall give, or cause to be given, notice to the MSRB of the occurrence of any of the following events described in this Section 5(b) with respect to the Series 2019 Bonds, if material, not later than ten (10) business days after the occurrence of the event:

1. Unless described in Section 5(a)(v), adverse tax opinions or other material notices or determinations by the Internal Revenue Service with respect to the tax status of the Series 2019 Bonds or other material events affecting the tax status of the Series 2019 Bonds;

2. Modifications to rights of the Bond holders;
3. Optional, unscheduled or contingent Bond calls;
4. Release, substitution, or sale of property securing repayment of the Series 2019 Bonds;
5. Non-payment related defaults;
6. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; or
7. Appointment of a successor or additional fiscal agent or the change of name of a fiscal agent.

(c) The City acknowledges that it is required to make a determination whether a Significant Event in Section 5(b) is material under applicable federal securities laws in order to determine if a filing with the MSRB is required. If the City determines that the occurrence of an event listed in Section 5(b) would be material under applicable federal securities laws, or if the City changes its Fiscal Year, the City shall file, or shall cause the Dissemination Agent to file, within ten (10) business days of occurrence, a notice of such event on EMMA.

(d) Notwithstanding the foregoing, notice of Significant Events described in Section 5(a)(vii) and Section 5(b)(3) above need not be given any earlier than the notice (if any) of the underlying event is given to Holders of affected Series 2019 Bonds pursuant to the Fiscal Agent Agreement.

SECTION 6. Identifying Information for Filings with EMMA. All documents provided to the MSRB under the Disclosure Certificate shall be accompanied by identifying information as prescribed by the MSRB.

SECTION 7. Termination of Reporting Obligation. The obligations of the City under this Disclosure Certificate shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Series 2019 Bonds. If such termination occurs prior to the final maturity of the Series 2019 Bonds, the City shall give notice of such termination in the same manner as for a Significant Event under Section 5(c).

SECTION 8. Dissemination Agent. The City may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Certificate, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent may resign by providing thirty (30) days written notice to the City.

The initial dissemination agent shall be Goodwin Consulting Group, Inc.

SECTION 9. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the City may amend this Disclosure Certificate, and any provision of this Disclosure Certificate may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of Sections 3(a), Section 4, Section 5(a) or Section 5(b), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Series 2019 Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original execution and delivery of the Series 2019 Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Holders of the Series 2019 Bonds in the same manner as provided in the Fiscal Agent Agreement for amendments to the Fiscal Agent Agreement with the consent of Holders, or (ii) does not, in the opinion of a nationally recognized bond counsel, materially impair the interests of the Holders or Beneficial Owners of the Series 2019 Bonds.

(d) Any amendment that modifies or increases the duties or obligations of the Dissemination Agent shall be agreed to in writing by the Dissemination Agent.

(e) In the event of any amendment or waiver of a provision of this Disclosure Certificate, the City shall describe such amendment in the next Annual Disclosure Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or, in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the City. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in the same manner as for a Significant Event, and (ii) the Annual Disclosure Report for the year in which the change is made shall present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

(f) Notice of any amendment made pursuant to this Section 9 shall be filed in the same manner as for the occurrence of a Significant Event under Section 5(c).

SECTION 10. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Disclosure Report or notice of occurrence of a Significant Event, in addition to that which is required by this Disclosure Certificate. If the City chooses to include any information in any Annual Disclosure Report or notice of occurrence of a Significant Event in addition to that which is specifically required by this Disclosure Certificate, the City shall have no obligation under this Disclosure Certificate to update such information or include it in any future Annual Disclosure Report or notice of occurrence of a Significant Event.

SECTION 11. Default. This Disclosure Certificate shall be solely for the benefit of the Holders and Beneficial Owners from time to time of the Series 2019 Bonds. In the event of a failure of the City to comply with any provision of this Disclosure Certificate, the Fiscal Agent may (and, at the request of the Participating Underwriter or the Holders of at least 25% aggregate principal amount of Outstanding Bonds and upon receipt of indemnity satisfactory to the Fiscal Agent, shall), or any Holder or Beneficial Owner of the Series 2019 Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by order of a court of competent jurisdiction in Yolo County, California, to cause the City to comply with its obligations under this Disclosure Certificate, *provided* that any holder or beneficial owner seeking to require the City to comply with this Disclosure Certificate shall first provide

at least thirty (30) days prior written notice to the City of the failure of the City, giving reasonable detail of such failure. Failure by the City to comply with any provision of this Disclosure Certificate shall not be deemed an Event of Default under the Fiscal Agent Agreement, and the sole remedy under this Disclosure Certificate in the event of any failure of the City to comply with the terms of this Disclosure Certificate shall be an action to compel performance. No person or entity shall be entitled to recover monetary damages under this Disclosure Certificate.

SECTION 12. Duties, Immunities and Liabilities of Dissemination Agent. The Dissemination Agent shall have only such duties as are specifically set forth in this Disclosure Certificate, and the City agrees to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys' fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent's negligence or willful misconduct. The Dissemination Agent shall be paid compensation by the City for its services provided hereunder in accordance with its schedule of fees as amended from time to time and all expenses, legal fees and advances made or incurred by the Dissemination Agent in the performance of its duties hereunder. The obligations of the City under this Section 12 shall survive resignation or removal of the Dissemination Agent and payment of the Series 2019 Bonds.

SECTION 13. Notices. Any notice or other communication to be given by the City or the Dissemination Agent under this Disclosure Certificate may be given by delivering the same by first class mail, postage prepaid, messenger, or overnight delivery to the addresses set forth below (until another address is filed by the City or the Dissemination Agent with the Fiscal Agent):

To the City:	City of Woodland 300 Main Street Woodland, California 95695 Attention: Finance Officer Telephone: 925-646-2181 Fax: 925-646-2649
If to the Fiscal Agent:	U.S. Bank National Association Global Corporate Trust Services One California Street, Suite 1000 San Francisco, CA 94111 Fax: 415-677-3769
If to the Dissemination Agent:	Goodwin Consulting Group, Inc. 555 University Avenue Sacramento, California 95825 Telephone: 916-561-0890 Fax: 916-561-0891

SECTION 14. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the City, the Dissemination Agent, the Participating Underwriter and Holders and Beneficial Owners from time to time of the Series 2019 Bonds, and shall create no rights in any other person or entity.

SECTION 15. Record Keeping. The City shall maintain records of Annual Disclosure Reports and notices of Significant Events, including the content of such disclosure, the name of the entities with which such disclosure was filed and the date of filing of such disclosure.

SECTION 16. Governing Law. The laws of the State of California shall govern this Disclosure Certificate, the interpretation thereof and any right or liability arising hereunder. Any action or proceeding to enforce or interpret any provision of this Disclosure Certificate shall be brought, commenced or prosecuted in any courts of the State located in Yolo County, California.

SECTION 17. Counterparts. This Disclosure Certificate may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

Dated: _____, 2019

CITY OF WOODLAND

By: _____
Kimberly McKinney
Finance Officer

The undersigned hereby agrees to act as
Dissemination Agent to the City pursuant
to the terms and conditions of this
Continuing Disclosure Certificate

GOODWIN CONSULTING GROUP, INC.

By: _____
Authorized Officer

EXHIBIT A

NOTICE TO MSRB OF FAILURE TO FILE ANNUAL DISCLOSURE REPORT

Name of Obligated Party: City of Woodland

Name of Bonds: City of Woodland Community Facilities District No. 2004-1 (Spring Lake) Special Tax Bonds, Series 2019 (Capital Projects)

Date of Delivery: _____, 2019

NOTICE IS HEREBY GIVEN that the City has not provided an Annual Disclosure Report with respect to the above-named Bonds as required by the Continuing Disclosure Certificate, dated _____, 2019. [The City anticipates that the Annual Disclosure Report will be filed by _____.]

GOODWIN CONSULTING GROUP, INC., as
Dissemination Agent

By: _____
Authorized Officer

cc: City

APPENDIX G
FORM OF OPINION OF BOND COUNSEL

APPENDIX H

DTC AND THE BOOK-ENTRY ONLY SYSTEM

The following description of the Depository Trust Company (“DTC”), the procedures and record keeping with respect to beneficial ownership interests in the Series 2019 Bonds, payment of principal, interest and other payments on the Series 2019 Bonds to DTC Participants or Beneficial Owners, confirmation and transfer of beneficial ownership interest in the Series 2019 Bonds and other related transactions between DTC, the DTC Participants and the Beneficial Owners is based solely on information provided by DTC. Accordingly, no representations can be made concerning these matters and neither the DTC Participants nor the Beneficial Owners should rely on the foregoing information with respect to such matters, but should instead confirm the same with DTC or the DTC Participants, as the case may be.

Neither the City (the “Issuer”) nor the Trustee appointed with respect to the Series 2019 Bonds (the “Trustee”) takes any responsibility for the information contained in this Appendix.

No assurances can be given that DTC, DTC Participants or Indirect Participants will distribute to the Beneficial Owners (a) payments of interest, principal or premium, if any, with respect to the Series 2019 Bonds, (b) certificates representing ownership interest in or other confirmation or ownership interest in the Series 2019 Bonds, or (c) redemption or other notices sent to DTC or Cede & Co., its nominee, as the registered owner of the Series 2019 Bonds, or that they will so do on a timely basis, or that DTC, DTC Participants or DTC Indirect Participants will act in the manner described in this Appendix. The current “Rules” applicable to DTC are on file with the Securities and Exchange Commission and the current “Procedures” of DTC to be followed in dealing with DTC Participants are on file with DTC.

1. The Depository Trust Company (“DTC”), New York, NY, will act as securities depository for the Series 2019 Bonds. The Series 2019 Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for the Series 2019 Bonds, in the aggregate principal amount of such issue, and will be deposited with DTC.

2. DTC, the world’s largest depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC, in turn, is owned by a number of Direct Participants of DTC and Members of the National Securities Clearing Corporation, Fixed Income Clearing Corporation, and Emerging Markets Clearing Corporation (NSCC, FICC, and EMCC, also subsidiaries of DTCC), as well as by the New York Stock Exchange, Inc., the American Stock Exchange LLC, and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others such as both U.S. and non- U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its

Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com

3. Purchases of Series 2019 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2019 Bonds on DTC's records. The ownership interest of each actual purchaser of each 2016 Green Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2019 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Series 2019 Bonds, except in the event that use of the book-entry system for the Series 2019 Bonds is discontinued.

4. To facilitate subsequent transfers, all Series 2019 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of Series 2019 Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2019 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2019 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

5. Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Series 2019 Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Series 2019 Bonds, such as redemptions, tenders, defaults, and proposed amendments to the security documents. For example, Beneficial Owners of Series 2019 Bonds may wish to ascertain that the nominee holding the Series 2019 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners, in the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

6. Redemption notices shall be sent to DTC. If less than all of the Series 2019 Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

7. Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Series 2019 Bonds unless authorized by a Direct Participant in accordance with DTC's Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to Issuer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2019 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

8. Principal and interest payments on the Series 2019 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts, upon DTC's receipt of funds and corresponding detail information from Issuer or Agent on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC nor its nominee, Agent, or Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of Issuer or Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

9. DTC may discontinue providing its services as securities depository with respect to the Series 2019 Bonds at any time by giving reasonable notice to Issuer or Agent. Under such circumstances, in the event that a successor securities depository is not obtained, security certificates are required to be printed and delivered.

10. The Issuer may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, security certificates will be printed and delivered to DTC.

11. The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that Issuer believes to be reliable, but Issuer takes no responsibility for the accuracy thereof.

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