Santa Clara Valley Water District
Environmental and Water Resources Committee Meeting

HQ Boardroom
5700 Almaden Expressway

REGULAR MEETING
REVISED AGENDA

Monday, January 22, 2024
6:00 PM

District Mission: Provide Silicon Valley safe, clean water for a healthy life, environment and economy.

Loren Lewis, Committee Chair
Charles Ice, Committee Vice Chair

Director Barbara F. Keegan, District 2
Director Nai Hsueh, District 5
Director Rebecca Eisenberg, District 7

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John Bourgeois
Vincent Gin
(Staff Liaisons)

Dave Leon, (COB Liaison)
Assistant Deputy Clerk II
daveleon@valleywater.org
1-408-630-2406

Note: The finalized Board Agenda, exception items and supplemental items will be posted prior to the meeting in accordance with the Brown Act.

Santa Clara Valley Water District
Environmental and Water Resources Committee

REGULAR MEETING
AGENDA

Monday, January 22, 2024	**6:00 PM**	**HQ Boardroom** **5700 Almaden Expressway** **San Jose CA 95118**

IMPORTANT NOTICES AND PARTICIPATION INSTRUCTIONS

Santa Clara Valley Water District (Valley Water) Board of Directors/Board Committee meetings are held as a "hybrid" meetings, conducted in-person as well as by telecommunication, and is compliant with the provisions of the Ralph M. Brown Act.

To maximize public safety while still maintaining transparency and public access, members of the public have an option to participate by teleconference/video conference or attend in-person. To observe and participate in the meeting by teleconference/video conference, please see the meeting link located at the top of the agenda. If attending in-person, you are required to comply with Ordinance 22-03 - AN ORDINANCE OF THE SANTA CLARA VALLEY WATER DISTRICT SPECIFYING RULES OF DECORUM FOR PARTICIPATION IN BOARD AND COMMITTEE MEETINGS located at https://s3.us-west-2.amazonaws.com/valleywater.org.if-us-west-2/f2-live/s3fs-public/Ord.pdf

In accordance with the requirements of Gov. Code Section 54954.3(a), members of the public wishing to address the Board/Committee during public comment or on any item listed on the agenda, may do so by filling out a Speaker Card and submitting it to the Clerk or using the "Raise Hand" tool located in the Zoom meeting application to identify yourself in order to speak, at the time the item is called. Speakers will be acknowledged by the Board/Committee Chair in the order requests are received and granted speaking access to address the Board.

- Members of the Public may test their connection to Zoom Meetings at: https://zoom.us/test
- Members of the Public are encouraged to review our overview on joining Valley Water Board Meetings at: https://www.youtube.com/watch?v=TojJpYCxXm0

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This agenda has been prepared as required by the applicable laws of the State of California, including but not limited to, Government Code Sections 54950 et. seq. and has

not been prepared with a view to informing an investment decision in any of Valley Water's bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of Valley Water's bonds, notes or other obligations and investors and potential investors should rely only on information filed by Valley Water on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures and Valley Water's Investor Relations website, maintained on the World Wide Web at https://emma.msrb.org/ and https://www.valleywater.org/how-we-operate/financebudget/investor-relations, respectively.

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Join Zoom Meeting:
https://valleywater.zoom.us/j/94403145442
Meeting ID: 944 0314 5442
Join by Phone:
1 (669) 900-9128, 94403145442#

1. CALL TO ORDER:

1.1. Roll Call.

2. TIME OPEN FOR PUBLIC COMMENT ON ANY ITEM NOT ON THE AGENDA.

Notice to the public: Members of the public who wish to address the Board/Committee on any item not listed on the agenda may do so by filling out a Speaker Card and submitting it to the Clerk or using the "Raise Hand" tool located in the Zoom meeting application to identify yourself to speak. Speakers will be acknowledged by the Board/Committee Chair in the order requests are received and granted speaking access to address the Board/Committee. Speakers' comments should be limited to three minutes or as set by the Chair. The law does not permit Board/Committee action on, or extended discussion of, any item not on the agenda except under special circumstances. If Board/Committee action is requested, the matter may be placed on a future agenda. All comments that require a response will be referred to staff for a reply in writing. The Board/Committee may take action on any item of business appearing on the posted agenda.

3. APPROVAL OF MINUTES:

3.1. Approval of October 16, 2023 Environmental and Water Resources Committee Minutes. 23-1242

Recommendation: Approve the minutes.

Manager: Candice Kwok-Smith, 408-630-3193

Attachments: Attachment 1: 101623 EWRC minutes

Est. Staff Time: 5 minutes

4. REGULAR AGENDA:

4.1. Election of Committee Chair and Vice-Chair. 24-0161

Recommendation: Elect 2024 Committee Chair and Vice-Chair.

Manager: Candice Kwok-Smith, 408-630-3193

Est. Staff Time: 5 Minutes

4.2. Review and Approve 2023 Annual Accomplishments Report for Presentation to the Board (Committee Chair). 24-0118

Recommendation:

A. Approve the 2023 Accomplishments Report for presentation to the Board; and
B. Provide comments to the Committee Chair to share with the Board as part of the Accomplishments Report presentation pertaining to the purpose, structure, and function of the Committee.

Manager: Candice Kwok-Smith, 408-630-3193

Attachments: Attachment 1: 2023 EWRC Accomplishments Report

Est. Staff Time: 5 minutes

4.3. Receive Information on One Water Guadalupe and Upper Pajaro Watershed Plan Priority Actions. 24-0111

Recommendation:

A. Receive information about development of the One Water Guadalupe and Upper Pajaro Watershed Plans.
B. Review and provide input on One Water Guadalupe and Upper Pajaro Watershed Plan Priority Actions.

Manager: Lisa Bankosh, 408-630-2618

Attachments: Attachment 1_Guadalupe Watershed Priority Action List
Attachment 2_Upper Pajaro Watershed Priority Actions List
Attachment 3_EWRC_PowerPoint

Est. Staff Time: 15 Minutes

4.4. Receive Update on the Development of Valley Water's Wildfire Resiliency Plan. 24-0095

Recommendation: Receive update on the development of Valley Water's Wildfire Resiliency Plan. This is a discussion item, and the Committee may provide comments if applicable. However, no action is required.

Manager: Luz Penilla, 408-630-2228

Attachments: Attachment 1 - PowerPoint

Est. Staff Time: 25 Minutes

4.5. Review and Receive Updates on the Environmental and Water Resources Committee's Working Groups. 24-0128

Recommendation:

A. Review and receive updates on the Environmental and Water Resources Committee's Working Groups, and

B. Provide comments to the Board on implementation of Valley Water's mission applicable to working groups' recommendations.

Manager: Candice Kwok-Smith, 408-630-3193

Attachments: Attachment 1: EWRC Working Groups January 2024

Est. Staff Time: 5 minutes

5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS.

This is an opportunity for the Clerk to review and obtain clarification on any formally moved, seconded, and approved requests and recommendations made by the Committee during the meeting.

6. ADJOURN:

6.1. Adjourn to Regular Meeting at 6:00 p.m. on April 15, 2024.

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Santa Clara Valley Water District

File No.: 23-1242

Agenda Date: 1/22/2024
Item No.: 3.1.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Approval of October 16, 2023 Environmental and Water Resources Committee Minutes.

RECOMMENDATION:
Approve the minutes.

SUMMARY:
In accordance with the Ralph M. Brown Act, a summary of Committee discussions, and details of all actions taken by the Capital Improvement Program Committee, during all open and public Committee meetings, is transcribed and submitted to the Committee for review and approval.

Upon Committee approval, minutes transcripts are finalized and entered into the Committee's historical record archives and serve as the official historical record of the Committee's meeting.

ENVIRONMENTAL JUSTICE IMPACT:
There are no Environmental Justice impacts associated with this item.

ATTACHMENTS:
Attachment 1: 101623 EWRC Minutes

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193

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ENVIRONMENTAL AND WATER RESOURCES COMMITTEE

DRAFT MINUTES

Monday, October 16, 2023

(Paragraph numbers coincide with agenda item numbers)

A special scheduled meeting of the Environmental and Water Resources Committee (Committee) Meeting was held on October 16, 2023, at Santa Clara Valley Water District, Headquarters Building, 5700 Almaden Expressway, San Jose, California.

1. CALL TO ORDER/ROLL CALL

Committee Chair Loren Lewis called the meeting to order at 6:00 p.m. A quorum was established with seven members present.

Members in attendance were:

Jurisdiction	Representative	Representative	Representative
District 1	Loren Lewis		
District 2	Charles Ice		
District 4	Bob Levy		
District 5	Mike Michitaka	Hon. Patrick S. Kwok	
District 6	Eleni Jacobson		
District 7	Arthur M. Keller, Ph.D.		

Members not in attendance were:

Jurisdiction	Representative	Representative	Representative
District 1	Swanee Edwards		
District 2	Elizabeth Sarmiento		
District 3	Hon. Bob Nuñez	Charles Taylor	
District 6	Jim Piazza		
District 7	Tess Byler (attended as member of the public)		

Board members in attendance were: Director Rebecca Eisenberg (District 7), Director Barbara Keegan (District 2) Board Representatives, and Director Nai Hsueh (District 5) Board Alternate.

Staff members in attendance were: Aaron Baker, Glenna Brambill, Christopher Hakes, Cindy Kao, Dave Leon, Sarah Piramoon, Lisa Porcella, Darin Taylor, and Jing Wu.

Public in attendance were: Tess Byler and Katja Irvin.

2. PUBLIC COMMENT

Committee Chair Loren Lewis declared time open for public comment on any item not on the agenda. There was no one who wished to speak.

3. APPROVAL OF MINUTES

3.1 APPROVAL OF MINUTES

It was moved by Bob Levy, seconded by Arthur M. Keller, Ph.D., and majority vote carried, to approve the August 21, 2023, Environmental and Water Resources Committee meeting minutes as presented. Hon. Patrick S. Kwok abstained.

4. REGULAR AGENDA ITEMS

4.1. UPDATE ON FISHERIES IMPROVEMENTS

Lisa Porcella reviewed the materials as outlined in the agenda item. Lisa Porcella and Aaron Baker were available to answer questions.

The Committee received the information, took no formal action, and discussed the following: monitoring key elements of the program to measure successes to show success of the program, conditions to state approval, multi-benefit projects, focusing on other species besides salmonoids, and removing impediments and working with outside agencies on other land parcels.

4.2 RECEIVE INFORMATION AND PROVIDE FEEDBACK ON THE DEVELOPMENT OF VALLEY WATER'S WATER SUPPLY MASTER PLAN 2050

Jing Wu reviewed the materials as outlined in the agenda item. Jing Wu, Cindy Kao, Aaron Baker, Kirsten Struve, Darin Taylor, and Samantha Greene were available to answer questions.

The Committee received the information, took no formal action, and discussed the following: how to withdraw if the use facility contract expires, which projects are in litigation, eliminating water waste and leaks, capturing stormwater, capacity of reservoirs after the rain storms and what measures will be taken for more stormwater, seismic retrofitting, water banking and partnerships, long-term investments and unit cost analyses, risk analysis, saltwater intrusion and subsidence, other water banking locations, and infrastructure reliability.

4.3 REVIEW AND RECEIVE UPDATES ON THE ENVIRONMENTAL AND WATER RESOURCES COMMITTEE'S WORKING GROUPS

There were no updates from the working groups.

The Committee took no action.

4.4 REVIEW OF ENVIRONMENTAL AND WATER RESOURCES COMMITTEE WORK PLAN, THE OUTCOMES OF BOARD ACTION OF COMMITTEE REQUESTS AND THE COMMITTEE'S NEXT MEETING AGENDA

Glenna Brambill reviewed the materials as outlined in the agenda item and noted that the next meeting will take place on January 22, 2023.

The Committee requested an item on the next agenda relating to an update of the recycled water and wildfire resiliency planning effort.

The Committee took no action.

5. INFORMATION ITEM

5.1 REVIEW FISCAL YEAR 2023-2024 BOARD WORK PLAN

Glenna Brambill reviewed the materials as outlined in the agenda item.

The Committee took no action.

6. CLERK REVIEW AND CLARIFICATION OF COMMITTEE'S REQUESTS TO THE BOARD

Glenna Brambill reported there were no action items for Board consideration.

7. REPORTS

7.1 DIRECTOR'S REPORT

Director Rebecca Eisenberg noted:

- She is open to communication with Committee members relating to funding projects within relevant areas of concern.

Director Nai Hsueh reported on:

- The New Board policies relating to the practice of Chairperson and Vice Chairperson and a newly adopted policy that the District will support potential candidates for Board positions by reimbursing 50% of candidate statement fees. She further noted that the Board adopted a Code of Ethics and Conduct, as well as a new policy relating to encampments of unsheltered individuals.
- The progress of various capital projects and construction contracts.

Director Barbara Keegan invited the Committee to attend the next Board Audit Committee meeting on October 18, 2023, and noted that the Committee plans to discuss audit functions and an updated risk assessment.

7.2. MANAGER'S REPORT

Staff expressed appreciation for Glenna Brambill on her final meeting as the Committee Liaison.

7.3 COMMITTEE MEMBER REPORTS

Members of the Committee expressed appreciation for Glenna Brambill on her final meeting as the Committee Liaison.

7.4 INFORMATIONAL LINK REPORTS

Links are contained in the agenda.

8. ADJOURNMENT

8.1 ADJOURN

Committee Chair Loren Lewis adjourned the meeting at 7:54 p.m. to the next regular meeting on Monday, January 22, 2024 at 6:00 p.m.

Dave Leon
Assistant Deputy Clerk II

Date approved:

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Santa Clara Valley Water District

File No.: 24-0161

Agenda Date: 1/22/2024
Item No.: 4.1.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Election of Committee Chair and Vice-Chair.

RECOMMENDATION:
Elect 2024 Committee Chair and Vice-Chair.

SUMMARY:
Per the Board Resolution, the duties of the Chair and Vice-Chair are as follows:

The officers of each Committee shall be a Chair and Vice-Chair, both of whom shall be members of that Committee. The Chair and Vice-Chair shall be elected by the Committee, each for a term of one year commencing on January 1 and ending on December 31 and for no more than two consecutive terms. The Committee shall elect its officers at the first meeting of the calendar year. All officers shall hold over in their respective offices after their term of office has expired until their successors have been elected and have assumed office.

The Chair shall preside at all meetings of the Committee, and he or she shall perform other such duties as the Committee may prescribe consistent with the purpose of the Committee.

The Vice-Chair shall perform the duties of the Chair in the absence or incapacity of the Chair. In case of the unexpected vacancy of the Chair, the Vice-Chair shall perform such duties as are imposed upon the Chair until such time as a new Chair is elected by the Committee.

Should the office of Chair or Vice-Chair become vacant during the term of such office, the Committee shall elect a successor from its membership at the earliest meeting at which such election would be practicable, and such election shall be for the unexpired term of such office.

Should the Chair and Vice-Chair know in advance that they will both be absent from a meeting, the Chair may appoint a Chair Pro-tempore to preside over that meeting. In the event of an unanticipated absence of both the Chair and Vice-Chair, the Committee may elect a Chair Pro-tempore to preside over the meeting in their absence.

BACKGROUND:

The District Act provides for the creation of advisory boards, committees, or commissions by resolution to serve at the pleasure of the Board.

Accordingly, the Board has established Advisory Committees, which bring respective expertise and community interest, to advise the Board, when requested, in a capacity as defined: prepare Board policy alternatives and provide comment on activities in the implementation of the District's mission for Board consideration. In keeping with the Board's broader focus, Advisory Committees will not direct the implementation of District programs and projects, other than to receive information and provide comment.

Further, in accordance with Governance Process Policy-3, when requested by the Board, the Advisory Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

The Board may also establish Ad-hoc Committees to serve in a capacity as defined by the Board and will be used sparingly.

ATTACHMENTS:
None.

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193

Santa Clara Valley Water District

File No.: 24-0118

Agenda Date: 1/22/2024
Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Review and Approve 2023 Annual Accomplishments Report for Presentation to the Board (Committee Chair).

RECOMMENDATION:

A. Approve the 2023 Accomplishments Report for presentation to the Board; and
B. Provide comments to the Committee Chair to share with the Board as part of the Accomplishments Report presentation pertaining to the purpose, structure, and function of the Committee.

SUMMARY:

The Accomplishments Report summarizes the committee's discussions and actions to prepare Board policy alternatives and implications for Board deliberation throughout 2023. The Committee Chair, or designee, presents the Accomplishments Report to the Board at a future Board meeting.

The Committee may provide feedback to the Committee Chair, at this time, to share with Board as part of the Accomplishments Report presentation pertaining to the purpose, structure, and function of the Committee.

BACKGROUND:

Governance Process Policy-8:
The District Act provides for the creation of advisory boards, committees, or commissions by resolution to serve at the pleasure of the Board.

Accordingly, the Board has established Advisory Committees, which bring respective expertise and community interest, to advise the Board, when requested, in a capacity as defined: prepare Board policy alternatives and provide comment on activities in the implementation of the District's mission for Board consideration. In keeping with the Board's broader focus, Advisory Committees will not direct the implementation of District programs and projects, other than to receive information and

provide comment.

Further, in accordance with Governance Process Policy-3, when requested by the Board, the Advisory Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

ATTACHMENTS:
Attachment 1: EWRC 2023 Accomplishments Report

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193

2023 Accomplishments Report:
Environmental and Water Resources Committee

Update: January 2024

The annual work plan establishes a framework for committee discussion and action during the annual meeting schedule. The committee work plan is a dynamic document, subject to change as external and internal issues impacting the District occur and are recommended for committee discussion. Subsequently, an annual committee accomplishments report is developed based on the work plan and presented to the District Board of Directors.

NOTE: There was no quorum on April 17, 2023, and the meeting was adjourned. The committee opted to receive presentations on the regular agenda items, but could not take any action.

ITEM	WORK PLAN ITEM BOARD POLICY	MEETING DATE	ACCOMPLISHMENT DATE AND OUTCOME
1	**Election of Chair and Vice Chair for 2023.**	January 23	**Accomplished January 23, 2023** The Committee unanimously approved Loren Lewis as the 2023 Environmental and Water Resources Committee Chair and Charlies Ice as the 2023 Environmental and Water Resources Committee Vice Chair.
2	**Annual Accomplishments Report.**	January 23	**Accomplished January 23, 2023** The Committee unanimously approved the 2022 Annual Accomplishments Report. *The Board received the Committee's presentation at its March 28, 2023, meeting.*
3	**Status of Working Groups.**	January 23 August 21 October 16	**Accomplished January 23, 2023** **Accomplished August 21, 2023** **Accomplished October 16, 2023** There were no working group updates.
4	**Review of Environmental and Water Resources Committee Work Plan, the Outcomes of Board Action of Committee Requests and the Committee's Next Meeting Agenda.**	January 23 August 21 October 16	**Accomplished January 23, 2023** **Accomplished August 21, 2023** **Accomplished October 16, 2023** The Committee received updates and reviewed the 2023 Board-approved Committee work plan and took no action.

2023 Accomplishments Report:
Environmental and Water Resources Committee

Update: January 2024

ITEM	WORK PLAN ITEM BOARD POLICY	MEETING DATE	ACCOMPLISHMENT DATE AND OUTCOME
5	**Standing Items Reports Fiscal Year 2023:**	January 23 August 21	**Accomplished January 23, 2023** **Accomplished August 21, 2023** The Committee received updates and took no action.
6	**One Water Plan - Guadalupe and Upper Pajaro Watershed Plans' Metrics, Targets, And Prioritization Criteria**	April 17	**Accomplished April 17, 2023** The Committee received a presentation on the One Water Plan - General Update and Upper Pajaro River Watershed Planning but could take no action.
7	**Update On Valley Water's Encampment Cleanup Operations**	April 17	**Accomplished April 17, 2023** The Committee received update on Valley Water's encampment cleanup operations but could take no action
8	**Flood-Managed Aquifer Recharge Preliminary Feasibility Study for Santa Clara County**	August 21	**Accomplished August 21, 2023** The Committee received a presentation on the Flood-Managed Aquifer Recharge Preliminary Feasibility Study and took no action.
9	**Drought Response Plan - Draft Drought Triggers and Actions**	August 21	**Accomplished August 21, 2023** The Committee received a presentation on the Drought Response Plan – Draft Drought Triggers and Actions and took no action.
10	**Update on Fisheries Improvements**	October 16	**Accomplished October 16, 2023** The Committee received a presentation on fisheries improvements and took no action.
11	**Receive Information and Provide Feedback on the Development of Valley Water's Water Supply Master Plan 2050**	October 16	**Accomplished October 16, 2023** The Committee received a presentation on Valley Water's Water Supply Master Plan 2050 and took no action.

2023 Accomplishments Report:
Environmental and Water Resources Committee

Update: January 2024

BOARD WORK PLAN GOALS:

1. Integrated Water Resources Management - Goal: Efficiently manage water resources across business areas.
2. Water Supply – Goal: Provide a reliable, safe, and affordable water supply for current and future generations in all communities served.
3. Natural Flood Protection – Goal: Provide natural flood protection to reduce risk and improve health and safety.
4. Environmental Stewardship – Goal: Sustain ecosystem health while managing local water resources for flood protection and water supply.
5. Addressing Encampment of Unsheltered People – Goal: Humanely assist in the permanent relocation of unsheltered people on Valley Water lands along waterways and at water supply and flood risk reduction facilities in order to address the human health, public safety, operational, and environmental challenges posed by encampments.
6. Climate Change – Goal: Mitigate carbon emissions and adapt Valley Water operations to climate change impacts.
7. Business Management – Goal: Promote effective management of water supply, flood protection, and environmental stewardship through responsive and socially responsible business services.

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Santa Clara Valley Water District

File No.: 24-0111

Agenda Date: 1/22/2024
Item No.: 4.3.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Receive Information on One Water Guadalupe and Upper Pajaro Watershed Plan Priority Actions.

RECOMMENDATION:

A. Receive information about development of the One Water Guadalupe and Upper Pajaro Watershed Plans.
B. Review and provide input on One Water Guadalupe and Upper Pajaro Watershed Plan Priority Actions.

SUMMARY:
One Water is a long range, integrated water resources planning initiative to direct Valley Water's future operations by identifying Priority Actions to meet Santa Clara County's most critical water resources needs over the next 30 years. Planning is based on five measurable objectives addressing water supply, water quality, flood risk, natural ecosystems, and climate change. The One Water Countywide Framework identifies metrics for each objective, which establish baseline conditions that should be measured in each watershed. The individual Watershed Plans set specific targets for those metrics during their development.

For the water supply and climate change objectives, One Water incorporates information from the Water Supply Master Plan, Climate Change Action Plan, and other relevant planning documents to identify Priority Actions. The Water Supply Master Plan is currently evaluating several opportunities, which will be incorporated into relevant watershed plans once they proceed as formal recommendations coming out of that planning process. For water quality, flood risk, and natural ecosystems objectives, Priority Actions are identified through extensive analysis of existing watershed conditions, Asset Management Plans, gap identification using metric and target data, external stakeholder outreach, and expert staff review. One Water is Valley Water's only long-range plan for flood protection and environmental stewardship.

Draft Priority Actions capable of achieving the targets set in each watershed plan were reviewed by One Water's executive steering committee and then presented to the Board Policy and Planning Committee and Agricultural Water Advisory Committee. Staff will provide an overview of the One Water planning process and draft Priority Actions for the Guadalupe and Upper Pajaro Watersheds for Committee review.

In March 2022, the Board of Directors adopted the One Water Countywide Framework and Coyote Watershed Plan. The Guadalupe and Upper Pajaro Watershed Plans will be recommended to the Board for adoption in early 2024. With adoption, the Board confirms the identified Priority Actions for potential incorporation into Valley Water operations and the Capital Improvement Program (CIP). The final two of five watershed plans, West Valley and Lower Peninsula Watershed Plans, will be developed starting in 2024.

Flood Vulnerability Assessment

Historically, Valley Water designed flood protection projects to remove parcels from FEMA's flood insurance maps, which are based on the extent of flooding from a 1% (100-year) flood event. Recognizing that large infrastructure projects designed to protect against a 100-year flood are becoming cost prohibitive and/or the needed improvements at that scale are seen by the community as unattractive or invasive, the Board of Directors approved a revision to Board Governance Ends Policy E-3.3 in 2021. The revised policy directs Valley Water to increase the health and safety of residents countywide by reducing community flood risk, not necessarily to the 1% flood level.

As part of the analysis performed for the Guadalupe and Upper Pajaro Watershed Plans, staff developed a new procedure to implement the revised Ends Policy. The procedure incorporates hydraulic modeling and spatial data of physical hazards, statistical hazards, and social vulnerabilities to assess flood vulnerability in the watershed. Physical hazards include flood extent for the 25-year (4%) return interval storm, as well as locations where water is deep or fast-moving. Statistical hazards include locations of recurring floods identified by the Field Information Team (FIT) program. Social vulnerability includes the location of underserved communities and critical facilities. A spatial overlay of these data creates a map that identifies the extent and severity of vulnerability to flooding and allows staff to identify and prioritize potential projects that can help mitigate it. The identified projects are included as Priority Actions in the watershed plans.

Guadalupe Watershed Priority Actions

The Guadalupe Watershed draft Priority Actions (Attachment 1) were identified through metric data analysis, expert and stakeholder input, and the flood vulnerability assessment described above.

Results of the flood vulnerability assessment identified five vulnerable areas in the Guadalupe Watershed. Of these five, two will addressed by the Upper Guadalupe Flood Protection Project, while Alamitos Creek, Ross Creek and Calero Creek are recommended for planning studies. Additional Priority Actions were identified to maintain and restore capacity to existing flood protection projects.

Ecological Resources and Water Quality Priority Actions reflect an intensive stakeholder engagement process which developed a 'habitat vision' for each subwatershed in the Guadalupe. Priority Actions implement the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) habitat improvement projects, assess the feasibility of the Alamitos Drop Structure to enhance aquatic habitat, partnerships to improve wildlife connectivity, reduce wildlife risk, and maximize habitat potential of watershed lands, and partnerships to reach a functional zero number of unsheltered people residing in waterways.

Upper Pajaro Watershed Priority Actions

The Upper Pajaro Watershed draft Priority Actions (Attachment 2) were identified through metric data analysis, expert and stakeholder input, and the flood vulnerability assessment described above.

Results of the flood vulnerability assessment identified the following areas in the Upper Pajaro Watershed as vulnerable to a 25-year flood event: portions of urban areas in Morgan Hill and San Martin, agricultural areas east of Gilroy and Highway 101, Highway 101 north of the State Route 25 interchange, and portions of southern Gilroy and the Uvas Creek-Pajaro River confluence. These flood vulnerabilities will be addressed by future flood protection projects and planning studies included in the Priority Actions, including the Upper Llagas Creek Flood Protection Project, the Highway 101/State Route 25 Interchange Project, led by Valley Transportation Authority (VTA) and Caltrans, and a future planning study for Uvas Creek. Additional Priority Actions were identified to maintain flood protection assets and restore capacity to existing creek channels. Staff are developing a countywide flood protection master plan project, anticipated to begin in FY27 (following completion of One Water plans for all watersheds), to create an implementation plan for all One Water flood risk reduction actions.

Ecological Resources and Water Quality Priority Actions reflect an intensive stakeholder engagement process involving staff and participation from numerous external agencies, organizations, partners, and community groups. Ecological Resource actions seek to conserve sensitive natural communities, improve habitat connectivity, expand riparian corridors, enhance fish passage, and work with partners to enhance ecological assets, such as San Felipe Lake. Water quality actions recognize the importance of expanding data collection efforts to improve understanding of existing conditions, reducing the impact of agriculture on water quality, and partnering with cities to address urban runoff issues. To guide and track implementation of ecological resources and water quality Priority Actions, staff will develop the Upper Pajaro Native Ecosystem Enhancement Tool. Mirroring a similar resource created for a portion of the Coyote Watershed, the tool will provide specific guidance on where different ecological enhancement actions are most physically and ecologically appropriate.

ENVIRONMENTAL JUSTICE IMPACT:
The Guadalupe and Upper Pajaro Watershed Plans each include an extensive stakeholder engagement process, a transparent process for identifying priority actions, and a new way to conduct flood risk reduction assessments, with a focus on health and safety and equitable flood protection.

ATTACHMENTS:
Attachment 1: Guadalupe Watershed Priority Actions List
Attachment 2: Upper Pajaro Watershed Priority Actions List
Attachment 3: PowerPoint Presentation

UNCLASSIFIED MANAGER:
Lisa Bankosh, 408-630-2618

Action Number	Priority Action * FAHCE actions	Description	Activity Type	Partner Agencies	Involved VW Department	Implementation Timeframe (0-10, 11-20, 21-50)	Cost (by magnitude, $, $$, $$$, etc.)
	Flood Risk Reduction Actions (FRR) - Short -Term						
FRR-01	Conduct Rodent Study	Conduct an engineering assessment study of rodent damage Countywide to (1) Quantify the extent to which rodent damage threatens the structural integrity of levees, (2)prioritize locations for repairing rodent damage, and (3) develop a methodology for future inspections and maintenance guidelines in order to rank/prioritize rodent damage to levees. Potential pilot location: Guadalupe River Bay to Tasman - had rodent damage that could potentially be addressed by O&M and/or WARP. Inspection records show 40% of reach with rodent holes and score of 88 (POF 4)	Assessment/Study		Asset Management, O&M, WARP	Short Term (0-10)	$$
FRR-04	Conduct Canoas Creek flood protection planning study (U/S of Corps project reach)	The Upper Guadalupe River Project, in partnership with USACE, is planning to eliminate overtopping in Canoas Creek near the confluence with the Guadalupe River. However, there are additional breakouts upstream of the confluence along Canoas Creek. Study should also address Asset management concerns: Guadalupe River Confluence to Hillsdale Drive: general erosion due to rodent damage and burrowing (reach-wide issue). Sediment removal is performed every 2-3 years Blossom Hill Road to Calero Avenue: Grading work is needed. Over 80% of assets is in moderate-high risk zone. Potential Alternative: Removing one of the two maintenance roads would increase flood capacity as well as increase ecological habitat in the channel. Also has the potential to be used as stormwater mitigation. Flood Risk (25-Yr): 231 Acres; 1,214 parcels	Assessment/Study	CSJ	Design and Construction Unit 6	Short Term (0-10)	$$$
FRR-05	Conduct engineering study to assess and repair Los Gatos Creek from HWY 280 to Lark Ave, HWY 280 to Bascom Ave, and near Guad River confluence	Hwy 280 to Lark Ave: general erosion due to rodent damage. Hwy 280 to Bascom Ave: Grading work is needed. In stream vegetation and herbaceous veg in channel and on both banks Guadalupe River Confluence to Vasona Dam Veg (ISV, TRE, VGH) a main concern in the downstream end near Guadalupe confluence. GSC (Rodent Control) is a bigger concern in the upstream end - Camden ponds to Lark Ave. Substantial amount of veg removal done (invasive plants) near Dam multiple times (less than 6").	Assessment/Study	CSJ, Town of Los Gatos	Asset Mgmt.	Short Term (0-10)	$$$
FRR-06	Complete Guadalupe River Tasman Dr -I-880	This project plans, designs, and constructs improvements along the Guadalupe River from Tasman Drive to Interstate 880 to restore the 100-year flood conveyance capacity. The project is considering several alternatives to achieve the Project objectives, including structural alternatives and flow modification alternatives, which could increase climate change resiliency. Implementation steps include Planning (current phase), design, and construction.	Project	CSJ, CSC	Business Planning and Analysis, Design and Construction	Short Term (0-10)	$$$$
FRR-07	Complete Guadalupe River–Upper, Interstate 280 to Blossom Hill Road (E8)	This project partners with the U.S. Army Corps of Engineers (USACE) to plan, design, and construct improvements along approximately 6 miles of the Guadalupe River, from Interstate 280 to Blossom Hill Road, to provide 1% flood protection, provide long-term net gains of 15 acres in riparian forest acreage, quality, and continuity of wildlife habitat, and conditions favoring Chinook salmon and steelhead trout, provide access to an additional 19 miles of suitable upstream spawning and rearing habitat, coordinate with the City of San Jose and the community to establish a continuous maintenance road suitable for trail development between Interstate 280 and Los Alamitos Creek, improve water quality by reducing bank erosion and sedimentation-related impacts along the river and tributaries. Implementation steps include Planning (current phase), design, and construction.	Project	CSJ	Business Planning and Analysis Unit, Design and Construction Division	Short Term (0-10)	$$$$$

ATTACHMENT 1: GUADALUPE WATERSHED PRIORITY ACTION LIST

Action Number	Priority Action * FAHCE actions	Description	Activity Type	Partner Agencies	Involved VW Department	Implementation Timeframe (0-10, 11-20, 21-50)	Cost (by magnitude, $, $$, $$$, etc.)
FRR-09	Model how environmental restoration projects would reduce flooding downstream	Initial studies show that adding floodplain "nodes" or small pockets of expanded floodplain area in constrained urban channels improves flood storage and flood risk downstream. Not much is known about how this would work specifically for open spaces in the Guadalupe Watershed that could be converted to floodplain "nodes"	Assessment/Study	N/A	H&H, Unit 241	Short Term (0-10)	$
FRR-10	Complete the South San Francisco Bay Shoreline Project, Phase I (EIA 11, San Jose / Alviso)	This project is a partnership with the California State Coastal Conservancy, the U.S. Army Corps of Engineers (USACE) and regional stakeholders to provide tidal flood protection, restore and enhance tidal marsh and related habitats, and provide recreational and public access opportunities along Santa Clara County's shoreline. EIA 11 includes the urban area of North San José, the community of Alviso and the San José-Santa Clara Regional Wastewater Facility. Construction work on Reaches 1 through 3 began in December 2021 and is estimated to continue until Summer 2025. Reach 1 extends from Alviso Marina to Union Pacific Railroad and Reaches 2 and 3 stretch from the Union Pacific Railroad to Artesian Slough. Design of Reaches 4 and 5, which extend from the Artesian Slough East to Coyote Creek, are on hold while construction phasing, access points, haul routes, staging, and easements are being addressed with the property owner. USACE and the non-federal partners are looking for alternative measures that meet project objectives and reduce construction costs. Implementation steps include Planning (current phase), design, and construction.	Project	CSCC, USACE, CSJ	Watersheds Design and Construction	Short Term (0-10)	$$$$
FRR-11	Conduct Planning Study for Calero Creek Flood Risk Reduction Project	Calero Creek – Alamitos Creek confluence up to Calero Reservoir. There are many residential properties along the lower floodplain but the majority of the floodplain is rural sparsely populated with structures. Santa Teresa Creek is a major tributary of Calero Creek. Flood Risk (25-Yr):72 acres, 91 parcels.	Project	N/A	Design and Construction Unit 6	Short Term (0-10)	$$
	Ecological Resource Actions (ECO) - Short Term						
ECO-01a	*Partner with others to design and construct Guadalupe Creek project 1-1 from the Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement	The Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement (Balance Hydrologics, 2018) identified Guadalupe Creek project #1-1 (downstream of Guadalupe Dam) as feasible and appropriate, but it still requires design and construction.	Project	RCD, CDFW, NMFS, no	EMMU	Short Term (0-10)	$$
ECO-01b	*Partner with others to design and construct Guadalupe Creek project 3-1 from the Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement	The Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement (Balance Hydrologics, 2018) identified Guadalupe Creek project #3-1 (by Wagner Road) as feasible and appropriate, but it still requires design and construction.	Project	RCD, CDFW, NMFS, no	EMMU	Short Term (0-10)	$$
ECO-02	*Improve suitable spawning and rearing habitat for salmonids below Calero and Almaden Dams in coordination with the FAHCE Adaptive Management Team.	Calero Creek and Alamitos Creek support various life stages of steelhead and salmon. Enhancing habitat in these reaches is important for supporting fish populations, and habitat availability in multiple creeks under various flow management regimes provides habitat diversity that can make fish populations more resilient to drought and climate change conditions. The addition of gravel, other coarse sediment, large wood, pools >1.5 ft deep, and restoration of pool-riffle morphology would improve habitat conditions and complement the flow regimes below the dams. The Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement Santa Clara County, California (Balance Hydrologics, 2018) can be used to identify opportunities for this action; planning, design, and construction will be needed. Short term action that may continue into medium term (11-20 years).	Project	RCD, CDFW, NMFS, no	Watersheds	Short Term (0-10)	$$$

ATTACHMENT 1: GUADALUPE WATERSHED PRIORITY ACTION LIST

Action Number	Priority Action * FAHCE actions	Description	Activity Type	Partner Agencies	Involved VW Department	Implementation Timeframe (0-10, 11-20, 21-50)	Cost (by magnitude, $, $$, $$$, etc.)
ECO-02a	*Partner with others to design and construct Alamitos Creek project 1-1 from the Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement	The Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement (Balance Hydrologics, 2018) identified Alamitos Creek project #1-1 (downstream of Almaden Dam) as feasible and appropriate, but it still requires design and construction. Action would inject gravels at the top of the reach to naturally form bed features downstream	Project	CDFW, NMFS, Water Board, USFWS	Watersheds	Short Term (0-10)	$$$
ECO-03	*Complete feasibility study of fish passage at Almaden Dam in coordination with the FAHCE Adaptive Management Team.	Tributaries to Almaden Reservoir support suitable habitat for steelhead and salmonid, but Almaden Dam blocks fish access to them. The benefits of and options for providing fish access beyond the dam (e.g., bypass channel, fish ladders, assisted migration) should be investigated in time to inform seismic retrofit planning. Other dams are not as important to assess as there is not the same amount of suitable habitat upstream of other unpassable dams in the watershed.	Assessment/Study	DODS, County Parks, NMFS, CDFW	Watersheds	Short Term (0-10)	$$
ECO-04	Assess feasibility of modifying Alamitos Drop Structure to enhance habitat	The Alamitos Drop Structure is critical water supply infrastructure and has a ladder to provide fish passage, but there are concerns that it may limit aquatic habitat and geomorphic connectivity with upstream habitat. Modifications of the structure will require analysis of water rights and alternative water supply infrastructure and/or operations, and could require extensive upstream and/or downstream channel work to create a functional gradient and more natural morphology through the area. This assessment would ideally be done before or concurrently with Alamitos Creek restoration through Almaden Lake.	Assessment/Study	NMFS, CDFW	Office of Integrated Water Management (both Water Utility and Watersheds)	Short Term (0-10)	$$
ECO-05	*Coordinate with other entities to improve fish passage at priority barriers owned by others in coordination with the FAHCE Adaptive Management Team.	Physical fish passage barriers have been inventoried and should be removed or remediated, generally from downstream to upstream. Valley Water should remove or remediate those that they own and in partnership with public landowners, but should also support the efforts of partners to remediate those on private property, such as: Guadalupe River at Hillsdale Avenue Bridge and at SJWC low-flow crossing, Pheasant Creek culvert, an old dam on Guadalupe Creek, and an Alamitos Creek private drop structure. Prioritization depends on landowner permission and funding availability. When possible, these efforts should restore natural pool-riffle morphology and facilitate sediment transport. These efforts will require planning, design, and construction.	Project	NMFS, CDFW, VHA, RCDs, SJWC, native tribes, non-profit organizations	Watersheds	Short Term (0-10)	$$$
ECO-06	Partner to support the Alma Bridge Road Newt Passage Project	MidPeninsula Regional Open Space District and County Roads and Airports, along with many other stakeholders including Valley Water and County Parks, are working together to address the high mortality of newts on Alma Bridge Road that is occurring seasonally each year when the newts are crossing the road. The Alma Bridge Road Newt Passage Project is working towards the goal of installing appropriate road enhancements (e.g., raised section(s) of road, new undercrossings, and directional fencing), some of which would be on Valley Water property. As of 2022, the project is exploring the feasibility of the various road improvement options.	Partnership	Midpen, County Roads and Airports, SC County Parks	Environmental Mitigation and Monitoring Unit	Short Term (0-10)	$
ECO-07	Partner to support the Highway 17 Wildlife and Trail Crossings Project	Together with private and public partners, Midpeninsula Regional Open Space District (MidPen) is working towards the goal of installing two independent road crossings across Highway 17 adjacent to Lexington Reservoir, some of which would be on Valley Water property. The wildlife undercrossing and recreational trail overcrossing would link over 30,000 acres of protected lands in the Santa Cruz Mountains. As of 2022, the project is exploring the feasibility of these crossings.	Partnership	MROSD, Caltrans, various other stakeholders	Watersheds (EMMU)	Short Term (0-10)	$$$
ECO-08	Develop program to incorporate restoration of areas impacted by unhoused encampments into Stream Maintenance Program	Existing and historical creekside encampment locations are tracked and mapped by Valley Water staff. After working with partners to reduce the prevalence of encampments within waterways and provide new housing for unsheltered individuals, impacted areas should be remediated and restored by removing trash and pollutants and replanting disturbed vegetation. A program to restore impacted areas will require planning, design, and implementation.	Program	CSJ, CSC, Town of Los Gatos, City of Campbell, Town of Monte Sereno, SCC, non-profit organizations	Watersheds Operations and Maintenance	Short Term (0-10)	$

Action Number	Priority Action * FAHCE actions	Description	Activity Type	Partner Agencies	Involved VW Department	Implementation Timeframe (0-10, 11-20, 21-50)	Cost (by magnitude, $, $$, $$$, etc.)
ECO-09	Develop and incorporate vegetation cover guidelines to decrease wildfire risk to native habitats	Complying with permit requirements for vegetation cover can result in plant and canopy densities that exacerbate the risk and severity of wildlife in riparian habitats, which are typically more resistant to wildfire, and nearby residential and commercial areas. Technical information should be evaluated to identify vegetation cover goals that result in environmental benefits without significantly increasing wildfire risks. Permitting agencies should be involved in this evaluation so that there is trust when the guidance is used in mitigation and revegetation plans. Consider connecting with local tribes to learn about traditional burn methods and plan a fire prevention program for the entire watershed, including the urban areas. This action is a study and plan/program.	Policy	RCD, CDF, municipal fire districts, Water Board, CDFW, non-profit organizations	Watersheds	Short Term (0-10)	$
ECO-10	Conduct Study identifying areas to expand and connect riparian corridors around channels, particularly where they are missing or only very narrow. Identify strategies and highest priorities to preserve, create, and enhance undeveloped buffers around creeks	Vegetated buffers around channels, typically referred to as riparian corridors, provide myriad ecosystem services, but have been removed or are only very narrow along many miles of channel. Forest, shrubland, grassland, and wetland communities can all be appropriate to establish, depending upon physical, groundwater, and land use conditions, and could be incorporated into multiple-benefit efforts for wildlife connectivity, groundwater recharge, and/or flood risk reduction. Such efforts would need to be balanced with land uses and landowner needs, and lands that flood frequently could be used to focus landowner outreach efforts. Valley Water should implement this action on its land and in association with other projects, but can also support the efforts of partners to implement this action on private property. Undeveloped buffers around creeks allow for flooding and geomorphic processes that do not impact development, farming, or people, and for habitat development, buffering, and wildlife movement. This action includes desk-top analysis to identify opportunities, priorities, and strategies for undeveloped areas that have the best potential for supporting conservation and restoration that provides multiple benefits. This action includes planning, design, and implementation. Short term action that may continue into medium term (11-20 years).	Project	VHA, OSA, County Parks, RCDs, native tribes, non-profit organizations	Watersheds, EMMU, VFO, CPRU, Land Management, and/or SMP	Short Term (0-10)	$$$
ECO-11	Conduct Study identifying areas to expand and enhance sycamore alluvial woodland	Sycamore alluvial woodland (SAW) is a rare sensitive natural community that depends on specific ranges of substrate and flow conditions. Opportunities to expand and enhance SAW should be investigated in the watershed. Given the physical conditions necessary to support SAW, these opportunities are most likely to occur in the upper watershed and above dams. This action includes planning, design, and implementation. Short term action that may continue into medium term (11-20 years).	Assessment/Study	VHA, OSA, MidPen, County Parks, SJWC	Watersheds	Short Term (0-10)	$$$
ECO-12	Partner to enhance rearing habitat in Guadalupe River	Guadalupe River support various life stages of steelhead and salmon. Enhancing habitat in the mainstem can help directly support fish populations, and habitat availability in multiple creeks and reaches under various flow management regimes provides habitat diversity that can make fish populations in the watershed more resilient to drought and climate change conditions. The addition of gravel, other coarse sediment, large wood, pools >1.5 ft deep, and restoration of pool-riffle morphology would improve habitat conditions. The Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement Santa Clara County, California (Balance Hydrologics, 2018) project #1-1 near the Alamitos Drop Structure has already been identified as feasible and appropriate, and needs only design and implementation. Other locations would include planning, design, and implementation. Short term action that may continue into medium term (11-20 years).	Project	RCD, non-profit organizations	Watersheds (FAHCE)	Short Term (0-10)	$$

Action Number	Priority Action * FAHCE actions	Description	Activity Type	Partner Agencies	Involved VW Department	Implementation Timeframe (0-10, 11-20, 21-50)	Cost (by magnitude, $, $$, $$$, etc.)
ECO-12a	Design and construct Guadalupe River project 1-1 from the Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement	The Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement (Balance Hydrologics, 2018) identified Guadalupe River project #1-1 near the Alamitos Drop Structure as feasible and appropriate, but it still requires design and construction. Inject gravel downstream of Alamitos drop structure. Wood can be installed here as well.	Project	RCD, non-profit organi	Watersheds (FAHCE, SMP)	Short Term (0-10)	$$
ECO-12b	Include rearing habitat enhancements in the Upper Guadalupe River Project	USACE is re-evaluating and will eventually design and construct the remaining reaches of the Upper Guadalupe River Project (UGRP). As the local sponsor, Valley Water should advocate for the inclusion of salmonid rearing habitat features and enhancement in the re-evaluation design. Information from Valley Water's UGRP Reach 6 Aquatic Habitat Improvement Project should be relayed to USACE in time to inform the UGRP design.	Project	USACE, NMFS	Watersheds Design and Construction	Short Term (0-10)	$$
ECO-15	Explore partnerships for habitat enhancement on Los Gatos Creek downstream of Lexington Reservoir	The extent of benefits and feasibility of options is uncertain and dependent on numerous land owner, land use, water management, and infrastructure variables. Given the effort and complexity of these efforts, and relatively short reaches of habitat that could become accessible or improved, committing to a plan or even a study is premature without first communicating with key Los Gatos Creek landowners to gauge interest and willingness to partner. This action is to convene those initial discussions.	Assessment/Study	VW, Town of Los Gatos, County Parks		Short Term (0-10)	$$
ECO-16	Facilitate the beneficial reuse of large wood and sediment from Lexington Reservoir	Reservoirs trap sediment and large wood that could be beneficially reused downstream to mitigate incision and provide aquatic habitat. This is problematic in much of the Guadalupe River watershed due to high mercury levels, but not likely in Lexington Reservoir. The amount of these materials in the reservoir, their condition and relocation risk factors (e.g., mercury and pathogens), and the logistics to remove, store, and relocate them needs to be evaluated to understand if beneficial reuse is feasible and appropriate.	Assessment/Study	VW, County Parks, Water Board	Watersheds (FAHCE, EMMU, and/or SMP)	Short Term (0-10)	$$
ECO-18	Partner to maximize the native habitat potential of the Guadalupe Gardens	The Guadalupe Gardens is an underutilized park owned by the City of San Jose, the uses of which are limited by its proximity to the airport, but that may have relatively high groundwater elevation. This action would evaluate the potential for lowering the ground surface elevation of the park to match an appropriate flood stage of the Guadalupe River or depth to groundwater to allow for flood inundation and/or create wetland habitat. This could create suitable habitat for beaver and encourage natural floodplain and wet meadow integration, in conjunction with public access and recreation. This action is a feasibility study.	Assessment/Study	City of San Jose, SPUR, SJ Airport (County Roads and Airports)	Watersheds (FAHCE, EMMU, and/or SMP)	Short Term (0-10)	$
ECO-19	Assess modified channels to identify strategies and priorities to enhance the ecological conditions	Straightened, trapezoidal channels, many of which are owned and/or maintained by Valley Water, reduce the ecological condition of riverine habitat in the watershed. The form and function of modified channels and other low scoring riverine/riparian reaches (based on CRAM scores) can be improved by expanding floodplains, adding aquatic habitat complexity, allowing for or planting more native vegetation, reducing invasive plants, and expanding and improving buffers around creeks. Valley Water can prioritize this work where it would also provide community benefits, such as trails, shade, and views of nature, and/or where channels or adjacent access roads are failing or at risk of doing so. This action includes planning and design.	Project	N/A	Asset Management, EMMU, SMP	Short Term (0-10)	$$
	Water Quality Actions (WQ)- Short Term						
WQ-01	Develop program to partner with agencies such as Resource Conservation Districts to facilitate erosion control on private properties	Erosion from private properties triggers downstream sediment removal for flood risk reduction, mobilizes pollutants, and impairs substrates of salmonids. Valley Water should help fund or provide other support for projects to help reduce this effect on private lands.	Program	GCRCD	Watersheds S&P	Short Term (0-10)	$

Action Number	Priority Action * FAHCE actions	Description	Activity Type	Partner Agencies	Involved VW Department	Implementation Timeframe (0-10, 11-20, 21-50)	Cost (by magnitude, $, $$, $$$, etc.)
WQ-04	Create or expand existing water quality monitoring program to support One Water metrics	The Guadalupe Watershed's metrics track critical physical, biological and chemical water quality values, however much of this data still needs to be collected. Establish a new water quality monitoring program or expand existing water quality measuring efforts to correct this data gap and collect this data for future One Water Plan updates. Also consider including any pesticide monitoring and emerging toxins. Some of this action can be supported by partners.	Program	SCVURPPP	Environmental Planning Unit/Water Quality	Short Term (0-10)	$$
WQ-05	Partner with Santa Clara County, cities, and other organizations to reach a functional zero number of unsheltered people residing on Valley Water lands along waterways.	Existing and historical creekside encampment locations are tracked and mapped by Valley Water staff. After working with partners to reduce the prevalence of encampments within waterways and provide new housing for unsheltered individuals, impacted areas should be remediated and restored by removing trash and pollutants and replanting disturbed vegetation. A program to restore impacted areas will require planning, design, and implementation.	Partnership	CSJ, CSC, Town of Los Gatos, City of Campbell, Town of Monte Sereno, SCC, non-profit organizations	Unhoused Task Force, CPRU	Short Term (0-10)	$$$
	Water Supply Actions (WS)- Short Term						
WS-01	Complete Almaden Dam Improvements	This project plans, designs, and constructs improvements to the Almaden Dam outlet works to modify or construct a new intake structure, capable of releasing 246 cubic feet-per-second of water without flushing of sediments through the outlet works, correct existing problems with the outlet energy dissipation structure, piping and valves, and stabilize and improve maintenance access.	Project	N/A	Dam Safety	Short Term (0-10)	$$$$
WS-02	Complete Almaden-Calero Canal Repairs	Due to the deteriorating condition of the 5-mile-long Almaden-Calero Canal (Canal), improvements to the Canal are being undertaken ahead of the elements of work at the Almaden Dam (elements of work related to the dam include new outlet works and a new spillway). Staff has commenced the design activities related to the rehabilitation of the Canal only. 50% design documentation is expected to be completed in 2024.	Project	N/A	Dam Safety	Short Term (0-10)	$$$
WS-05	Complete Vasona Pump Station Upgrade	This project designs, and constructs improvements to the Vasona Pump Station, including replacing aging pumps, motors, drives, valves, actuators, flow meters, and electrical and control systems that have reached the end of their useful life; and adds one redundant pump.	Project	N/A	Business Planning and Analysis Unit, Treatment Plants Project Delivery Unit	Short Term (0-10)	$$$$
WS-06	Complete Rinconada Water Treatment Plant - Residuals Remediation	This project plans, designs, and constructs modifications to the Rinconada Water Treatment Plant (RWTP) residuals management processes	Project	N/A	Business Planning and Analysis Unit, Construction Services Unit	Short Term (0-10)	$$$$
WS-07	Complete Rinconada Water Treatment Plant - Reliability Improvement	This project plans, designs, and constructs new facilities at Rinconada Water Treatment Plant (RWTP) that will improve plant reliability	Project	N/A	Business Planning and Analysis Unit, Treatment Plants Project Delivery Unit	Short Term (0-10)	$$$$$
WS-08	Complete Santa Teresa Water Treatment Plant Electrical Improvement	This project plans, designs, and constructs improvements to ensure the safety, operational reliability and maintainability of electrical systems at Santa Teresa Water Treatment Plant (STWTP).	Project	N/A	Business Planning and Analysis Unit, Treatment Plants Project Delivery Unit	Short Term (0-10)	$$$$

Action Number	Priority Action * FAHCE actions	Description	Activity Type	Partner Agencies	Involved VW Department	Implementation Timeframe (0-10, 11-20, 21-50)	Cost (by magnitude, $, $$, $$$, etc.)
	Medium Term Actions						
CC-01	Support the development of a single model/map of sea level rise that can be shared with regional agencies	While sea level rise models already exist, a coordinated standard of seal level rise modeling has not been accepted across all Bay Area cities and counties. Support the development of a single model/map of SLR that can be shared with regional agencies. Evaluate how SLR may change the creek profile at the coastal and fluvial flooding interface.	Partnership		Hydrology, Hydraulics and Geomorphology, Design and Construction	Medium Term (11-20)	$
CC-02	Develop policy on integrating Forecast Informed Reservoir Operations (FIRO) into Water Supply and Flood Risk Reduction resilience strategy (at Lexington Reservoir)	Forecast Informed Reservoir Operations have been shown to improve water supply and increase flexibility in reservoirs to provide floor risk reduction. FIRO is a promising solution to the increasing rainfall intensity projected to occur with Climate change. Although this has been used unofficially and in emergency situations at Valley Water already, there may be benefit to creating an official policy. This is being studies currently through the Guadalupe River - Tasman to I-880 Project for use at Lexington Reservoir.	Policy	N/A	Water Supply Planning, H&H, Raw Water, Water Utility, Legal	Medium Term (11-20)	$$$
ECO-01	*Improve suitable spawning and rearing habitat for steelhead trout and salmon on Guadalupe Creek below Guadalupe Reservoir in coordination with the FAHCE Adaptive Management Team.	Most of Guadalupe Creek supports multiple life stages of salmonids. The addition of gravel, other coarse sediment, large wood, pools >1.5 ft deep, and restoration of pool-riffle morphology would improve habitat conditions in this very important salmonid reach and mitigate the effects of Guadalupe Dam on sediment supply. The Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement Santa Clara County, California (Balance Hydrologics, 2018) project #1-1 and 3-1 have already been identified as feasible and appropriate, but still require design and construction. Additional locations will require planning, design, and construction.	Project	RCD, CDFW, NMFS, non-profit organizations	Watersheds	Medium Term (11-20)	$$$
ECO-14	Partner to support assessment, enhancement, and management of livestock stock ponds for habitat	Stock ponds are important not only for livestock but also can provide critical habitat for native wildlife that have come to depend on these reliable sources of water and wetland habitat. They help maintain biodiversity and can provide for important habitat areas if designed and managed for native species correctly. Valley Water does not own stock ponds, but can support this effort through information and cost sharing and technical support.	Partnership	VHA, County Parks, Open Space Districts, CDFW, USFWS, OSA	Office of Integrated Water Management (both Water Utility and Watersheds)	Medium Term (11-20)	$
ECO-17	*Seek Funding for and Complete Alamitos Creek Separation and Restoration Project (formerly Lake Almaden Improvement Project) in coordination with the FAHCE Adaptive Management Team.	Separating Alamitos Creek from Almaden Lake is a priority action in the VHP and Santa Clara Valley RCIS, and an important type of action in the NMFS recovery plan for the region and FAHCE. It will improve fish passage, reduce mercury load and methylation, and reduce water temperature, and more. Valley Water has prepared 60% designs and a FEIR, but the approach to the project needs to be reconsidered to reduce construction costs. Ideally this action would be planned and undertaken in coordination with any assessment efforts for improved fish passage at the Alamitos Drop Structure. This action includes planning, re-design, and construction.	Project	VHA, CDFW, NMFS, Water Board, City of San Jose	Watersheds (FAHCE, EMMU, and/or SMP)	Medium Term (11-20)	$$$$

ATTACHMENT 1: GUADALUPE WATERSHED PRIORITY ACTION LIST

Action Number	Priority Action * FAHCE actions	Description	Activity Type	Partner Agencies	Involved VW Department	Implementation Timeframe (0-10, 11-20, 21-50)	Cost (by magnitude, $, $$, $$$, etc.)
ECO-20	Complete studies and agency negotiations to facilitate safe sediment reuse.	Sediment removal to reduce flood risk and facilitate fish passage robs downstream habitats and the Bay of critical sediment supply, is costly, and impacts the environment. In the Guadalupe River watershed, however, such efforts also help reduce the amount of mercury in the environment and that is delivered to the Bay. The reuse of removed sediment can support habitat development, protect against sea level rise, and greatly reduce the cost and effort of securing sediment for restoration projects, but cannot increase mercury exposure risks. Progress must be made on two levels to facilitate safe sediment reuse on a watershed-scale: (1) the necessary regulatory approvals must be sought, technically justified, and secured, and (2) the physical space and equipment necessary for sediment storage, sorting, and cleaning must be secured. A Pilot Study in partnership with SFEI is currently underway in a different watershed, which will help inform this watershed's work. This action includes assessment and planning.	Assessment/Study	Regional Board, BCDC, SFEI	Planning & Policy, EMMU, SMP, Design & Construction	Medium Term (11-20)	$$
FRR-02	Conduct Alamitos Creek Planning Study (and incorporate ECO-17)	Randol Creek Levee is known to have uneven elevations on either side of the creek channel, creating a flooding risk for a local school parking lot. The school also experiences flooding from Alamitos Creek. Additionally, the Camden Avenue culvert in this area is undersized, creating a backwater effect and increasing flood risk. Due to the many sources of flood risk in this area, a more wholistic flood risk planning study is needed in this area. Alamitos Creek - Almaden Lake to Foothills (Almaden Rd/Beltran Rd Intersection). There are man made levees along Alamitos Creek from Almaden Lake up to McKean Road. This area of the floodplain is densely populated with residential properties. From McKean Road up to the Beltran Road, the floodplain is very rural and sparsely populated. The project would include the following tributaries: Golf Creek, Greystone Creek, and Randol Creek. Flood Risk (25-Yr): 270 acres 357 parcels.	Assessment/Study	CSJ	Design and Construction Unit #6	Medium Term (11-20)	$$$
FRR-03	Conduct Ross Creek flood protection planning study (U/S of Corps project reach)	The Upper Guadalupe River Project, in partnership with USACE, is planning to eliminate overtopping in Ross Creek near the confluence with the Guadalupe River. However, there are additional breakouts upstream of the confluence along Ross Creek, as well as sediment deposition issues in certain reaches. A Feasibility Study has already been done for Ross Creek, so the next step is an alternatives analysis or full Planning Study. Potential Alternative: Incorporate Asset Management concerns: Kirk Rd to Camden and Union to Camino Del Cerro(end): mainly erosion. 45% of assets in moderate-high risk zone. Rest of Creek: (mainly Jarvis to Lone Hill) Erosion, Sediment and MGR (Grading Work) Ross Creek tends to have erosion issues thru-out and reoccurring sed removal and H&H concerns. Potential Alternative: Removing one of the two maintenance roads would increase flood capacity as well as increase ecological habitat in the channel. Also has the potential to be used as stormwater mitigation. Flood Risk (25-Yr): 231 Acres; 1,214 parcels	Assessment/Study	CSJ	Design and Construction Unit 6	Medium Term (11-20)	$$$
FRR-08	Perform Feasibility Study of using existing ponds and lakes to store floodwater when necessary	Assess the feasibility of expanding the use of existing ponds and lakes (Almaden, etc.) to store floodwater when necessary, considering off channel storage options along the creeks to reduce flood flows and the need for flood protection infrastructure. The use of Valley Water's percolation ponds, lakes and reservoirs comes with a large amount of political and logistical issues. Study should determine if it is worth adding flood storage as an additional option.	Assessment/Study	SCC Parks	Watersheds, Raw Water	Medium Term (11-20)	$$
WQ-02	Partner to support Santa Clara County Parks in the remediation of legacy mercury mine waste at twenty-three high priority sites designated by the San Francisco Bay Regional Water Quality Control Board in Almaden Quicksilver County Park	Support Santa Clara County Parks in the remediation of legacy mercury mine waste at twenty-three high priority sites designated by the San Francisco Bay Regional Water Quality Control Board in Almaden Quicksilver County Park (SFBRWQCB, 2022).	Partnership	County Parks, Water Board	Environmental Planning Unit	Medium Term (11-20)	$$$$$
WQ-03	Partner to support Private Property Owners in the remediation of legacy mercury mine waste in Upper Watershed	Support Private Property Owners in the remediation of legacy mercury mine waste in high priority sites designated by the San Francisco Bay Regional Water Quality Control Board in the Upper Watershed.	Partnership	Water Board, Private Property Owners	Environmental Planning Unit/Water Quality	Medium Term (11-20)	$$$$$

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WQ-03a	Encourage Waste Management to remediate legacy mercury mining waste along Guadalupe Creek near the site of the former Guadalupe Mine.	Encourage Waste Management to remediate legacy mercury mining waste along Guadalupe Creek near the site of the former Guadalupe Mine. Private property owners may not have the funds or resources needed to remediate the legacy mercury, but it is a source that affects the whole watershed. Consider ways to support remediation.	Partnership	Waste Management, Water Board	Environmental Planning Unit/Water Quality	Medium Term (11-20)	$$$$$
WQ-03b	Encourage property owner(s) to remediate mercury mine waste from the former Santa Teresa Mine.	Encourage property owner(s) to remediate mercury mine waste from the former Santa Teresa Mine. Private property owners may not have the funds or resources needed to remediate the legacy mercury, but it is a source that affects the whole watershed. Consider ways to support remediation.	Partnership	Private Property Owners, Water Board	Environmental Planning Unit/Water Quality	Medium Term (11-20)	$$$$$
WS-04	Complete Almaden Valley Pipeline Replacement project	This pipeline is used to supply raw water to Valley Water's water treatment plants and groundwater recharge facilities. This pipeline provides access, with no redundancy, to local raw water sources from Valley Water's Anderson and Calero Reservoirs and imported water from the United States Bureau of Reclamation San Luis Reservoir and San Felipe system.	Project	N/A	Business Planning and Analysis Unit, Pipelines Project Delivery Unit	Medium Term (11-20)	$$$$$
WS-09	Construct Indirect Potable Reuse (Palo-Alto) - Los Gatos Recharge System	Design and construction of an Advanced Water Purification Facility (AWPF) located in Palo Alto, pump station, water conveyance pipelines to the existing Los Gatos Recharge System (LGRS) complex located in the City of Campbell, lateral pipelines and associated facilities.	Project	City of Palo Alto and Mountain View	Business Planning and Analysis Unit, Recycled Water Unit/Water Supply Division, Raw Water, Groundwater units	Medium Term (11-20)	$$$$$
	Long Term Actions						
ECO-13	As habitat enhancements are implemented, adapt FAHCE monitoring as needed in coordination with FAHCE Adaptive Management Team (AMT)	FAHCE has a robust monitoring program in place. As watershed enhancement are being planned and implemented, whether undertaken by FAHCE or not, the fisheries and aquatic habitat monitoring conducted under FAHCE should be strategically adapted to help detect changes resulting from implemented projects. Such monitoring could include additional water temperature monitoring, additional PIT antennaes, or other monitoring determined appropriate by VW and its FAHCE AMT.	Program	CDFW, NMFS, Water Board, USFWS	Watersheds (FAHCE)	Long Term (21-50+)	$$
WS-03	Complete Calero and Guadalupe Dams Seismic Retrofits	This project plans (engineering and environmental), designs and constructs improvements for the Calero and Guadalupe Dams to stabilize the embankments enough to withstand a Maximum Credible Earthquake and implement improvements, as necessary, for the dam systems to safely pass the Probable Maximum Flood (PMF).	Project	N/A	Business Planning and Analysis Unit, Dam Safety	Long Term (21-50+)	$$$$$
WS-10	Construct a pipeline to connect raw water system to Lexington Reservoir or Vasona Reservoir	Constructs a pipeline between either Vasona or Lexington Reservoir and the raw water system to provide greater flexibility in using local water supplies. The pipeline would allow surface water from the reservoir to be put to beneficial use elsewhere in the county and increase utilization of existing water rights, especially in combination with the Los Gatos Ponds Potable Reuse Project. In addition, the pipeline will enable Valley Water to capture some wet-weather flows that would otherwise flow to the Bay. Water quality issues would require pretreatment/management. An institutional alternative could include an agreement to use some of Valley Water's reservoir water right at San Jose Water Company's Montevina Water Treatment Plant.	Project	N/A	Water Supply Planning and Conservation/ Water Supply Division, Raw Water	Long Term (21-50+)	$$$$

*Cost by Magnitude (up to $ amount): $ = $100k, $$ = 1M, $$$ = 10M, $$$$ = 100M, $$$$$ = 100M+

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Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
Flood Risk Reduction (FRR) - Short Term Actions							
FRR-01	Identify and assess open space areas adjacent to creeks compatible with flood detention and environmental protection for incorporation into future flood protection projects.	The Pajaro watershed has a lot of open land and there is potential for flood detention, environmental restoration/enhancement, and FloodMAR: Flood-Managed Aquifer Recharge. This involves using open space to collect and detain flood waters and allowing it to recharge the groundwater aquifers while also reducing flood risk. The Pajaro Watershed does not drain into the S.F Bay as the other main watersheds in Santa Clara County, but instead drains southwest to Santa Cruz and Watsonville where Pajaro River ultimately enters the Pacific Ocean. There is concern for potential induced flooding in those downstream areas with any flood protection measures in the Pajaro Watershed that increase the flows downstream. Flood detention measures reduce flows downstream and could provide flood risk reduction benefits for not only Santa Clara County but San Benito and Santa Cruz counties as well. Instead of raising floodwalls and/or levees, identifying and utilizing recreational areas for potential flood risk reduction projects (i.e. McKelvey Park Baseball field & detention basin), will resolve various issues such as higher construction and o&m costs and reducing significant environmental impacts and mitigation costs. Feasibility and planning studies will need to be developed as well as coordinating support from city/county entities that may share right-of-way/land rights to determine appropriate maintenance operations post design and construction. Valley Water has began coordinating with the Santa Clara Valley Open Space Authority to pursue this concept at the Pajaro River Agricultural Preserve (see ECO-1).	Assessment/Study	Santa Clara County Parks and Recreation Department, City of Morgan Hill, City of Gilroy, OSA, PRWFPA	Watersheds Stewardship and Planning Division, Hydrology, Hydraulics, and Geomorphology Unit	0-10	$$
FRR-02	Complete planning and design and implement Lower Llagas Creek Capacity Restoration Project	This project plans, designs, and constructs improvements on 7.15 miles of Lower Llagas Creek, from Buena Vista Avenue to Pajaro River, to accomplish the following objectives: 1. Evaluate the current flood risk in the area surrounding the project versus the design level flood risk 2. Develop options to provide flood protection for Lower Llagas Creek Reaches 2 and 3 in accordance with Federal Emergency Management Agency criteria where applicable 3. Identify feasible opportunities for environmental restoration and corridor preservation 4. Coordinate planning, design, and construction efforts with the South County Regional Wastewater Authority	Project	City of Gilroy	Business Planning and Analysis, Watersheds Design and Construction, Unit 6	0-10	$$$$

Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
FRR-03	Support Valley Transportation Authority's implementation of US 101/SR 25 Interchange Project - Phase 1	Valley Transportation Authority and Caltrans are working to resolve the traffic congestion issues at the intersection of Highway 101 and State Route 25. Phase 1 of the project will reconstruct the US 101/SR 25 interchange slightly north of the current interchange. Construction of culverts and detention basins are included in the project, which would alleviate recurrent flooding of Highway 101 in the vicinity. There is risk of flooding in this area from Gavilan Creek which crosses under Highway 101 near the intersection as well as from Uvas Creek further north. This project would reduce the flood risk coming from Gavilan Creek. Valley Water coordinated with Valley Transportation Authority during project planning and design. Project also includes wildlife passage improvements including fencing, jump-outs, median retrofits, and a new undercrossing to reduce roadkill. Construction is expected to begin in 2024 and finish in 2027.	Project; Partnership	VTA, CalTrans	Community Projects Review Unit	0-10	$
FRR-04	Analyze flood risk by completing hydraulic modeling for the Upper Pajaro Watershed.	The Pajaro watershed is the most outdated of the major watersheds when it comes to hydraulic modeling and determining the existing flood risk. There are many channels that have not been modeled and others with outdated flood risk data. Although much of the watershed is rural and agricultural, it is still necessary to have an understanding of the true flood risk. As well as structures, it is vital to protect our roadways (Highway 101 has flooding issues), critical facilities (there is a wastewater treatment plant within the Uvas Creek floodplain), and farmland from flood waters. Channels with outdated, minimal or no flood risk analysis include: the Soap Lake region with Pajaro River, Miller's Canal, some agricultural canals, and portions of Uvas Creek, Pacheco Creek, Tesquisquita Slough, and Ortega Creek; Pacheco Creek; Tesquisquita Slough; Jones Creek and its tributaries; Uvas Creek upstream of Santa Teresa Blvd.; Lower Miller Slough; Princevalle drain; and several Upper Llagas Creek tributaries in the eastern portion of the watershed. Once the flood risk has been analyzed and updated, the next step can be to remap the FEMA flood maps and update the flood zone designations where necessary. This work can be done by Valley Water under Safe, Clean Water Program Priority F3 and submitted to FEMA for potential updates to their flood mapping and Flood Insurance Studies (FIS).	Assessment/Study	San Benito County, Pajaro River Watershed Flood Prevention Authority	Watersheds Stewardship and Planning Division, Hydrology, Hydraulics, and Geomorphology Unit	0-10	$$
FRR-05	Request updates to FEMA flood maps and flood zone designations upon completion of hydraulic modeling.	Once the flood risk has been analyzed and updated, the next step is to partner with cities and FEMA to update the flood zone designations as appropriate. Any official updates to the flood mapping and flood zone designations will be done by FEMA and can affect the flood insurance paid by the property owners. Much of the watershed is designated as Zone D in the FEMA flood maps, which is used to designate areas with possible but undetermined flood hazards. By updating the hydraulic analysis in the watershed, Valley Water can provide a more accurate picture of what the existing flood risk is in the watershed, better prepare and inform the public of this flood risk and update the FEMA Flood zones so that the flood insurance property owners are paying correctly aligns with the flood risk. This action can occur as progress is made on flood modeling called for in FRR-4.	Partnership	FEMA, Cities of Morgan Hill and Gilroy	Watersheds Stewardship and Planning Division, Hydrology, Hydraulics, and Geomorphology Unit	0-10	$

Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
FRR-06	Complete Upper Llagas Creek Flood Protection Project	In April 2022, Valley Water completed Phase 1 construction. It included channel excavation, construction of the on-site compensatory mitigation, Lake Silveira wetlands, Masten Avenue Bridge concrete underpinning, Monterey Road Bridge concrete lining, installation of rock slope protection, storm drain outfall modifications, removal of concrete rubble, debris and legacy trash, and destruction of monitoring wells. It also included the installation of bat boxes, as well as removal of 12.5 acres of invasive blackberry at Lake Silveira and excavation to restore 2,000 linear feet of Llagas Creek from Lake Silveira towards Monterey Highway. Phase 2A construction began in June 2021 within a portion of Reach 8 in downtown City of Morgan Hill. Phase 2A includes approximately 2,300 linear feet of a horseshoe-shaped underground tunnel 14-ft x 12 ft and approximately 1,600 linear feet of 10 ft x 9 ft twin Reinforced Concrete Box Culverts (RCBs) upstream and downstream of the proposed tunnel to carry high water flows. Construction is expected to be completed in FY24. Phase 2B construction consists of approximately 1,900 linear feet of twin reinforced concrete box culverts (10 ft x 9 ft), creek modifications and excavation by widening and deepening, installation of culverts at various street crossings, construction of an inlet basin weir split-flow structure and bridge underpinning work. Upon completion of Phases 1, 2A and Phase 2B, the project will provide flood protection to 1,100 homes, 500 businesses and 1,300 agricultural acres while improving stream habitat.	Project	USACE, City of Morgan Hill	Business Planning and Analysis, Watersheds Design and Construction Unit 3	0-10	$$$$$
FRR-10	Improve coordination for intercounty flood protection and by maintaining communication and information sharing with partner agencies.	The Pajaro Watershed is managed for many purposes at many scales by numerous agencies. Additional assessment of flood vulnerabilities and dynamics are required to comprehensively understand flood risks throughout the Pajaro Watershed and the downstream impacts of upstream actions. In addition to Valley Water, San Benito, Monterey and Santa Cruz counties are considering flood control actions along the Pajaro River and Pacheco Creek. Valley Water can improve coordination and ensure its projects are compatible by sharing information about its flood vulnerability analyses, communicating about its management of flood risk, and participating in Pajaro River Watershed Flood Prevention Authority meetings.	Partnership	Pajaro River Watershed Flood Prevention Authority,San Benito County, Santa Cruz County, Monterey County, Central Coast Regional Water Quality Control Board, Pajaro River Watershed Flood Prevention Authority	Watersheds Stewardship and Planning Division, Hydrology, Hydraulics, and Geomorphology Unit	0-10	$
FRR-11	Complete Planning Study for Uvas-Carnadero Creek Flood Protection Project	This planning study would assess opportunities to construct flood risk reduction measures along approximately 4.5 miles of Uvas Creek from SR 25 up to Luchessa Ave. Portions of this reach has less than 10-year capacity and have frequently flooded Highway 101 just north of where Uvas Creek crosses under the highway. Highway 101 is the major throughway in this area and it flooding is a major concern. There is approximately 400 acres and 5,466 parcels at risk of flooding from a 25-year flood event. The creek upstream of this reach has 100-year protection with levees up to Santa Teresa Blvd. The creek downstream of this reach floods but is actually a part of the Soap Lake flooding issues and should be considered as part of the Soap Lake action item. The cost estimate provided includes the entirety of the project through construction.	Project	USACE	Hydrology, Hydraulics, and Geomorphology Unit; Design and Construction, Unit 6	0-10	$$$$

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Ecological Resource Actions (ECO) - Short Term							
ECO-01	Partner with Santa Clara Valley Open Space Authority and other organizations to expand and enhance floodplain at Pajaro River Agricultural Preserve.	The VHA and OSA are planning ecosystem enhancements in collaboration with The Nature Conservancy at OSA's Pajaro River Agricultural Preserve that could increase jurisdictional water acres and contribute to multiple One Water metrics. Part of the planning area is on and adjacent to Valley Water property. Valley Water's Carnadero Preserve and Pajaro Freshwater Wetland are award-winning examples of habitat creation, enhancement, and farmland conservation that could serve to inform efforts on the Pajaro River Agricultural Preserve. This action is to support the planning, design, and implementation of this project through technical assistance and streamlined encroachment permitting for access to Valley Water property.	Project; Partnership	Pajaro River Watershed Flood Prevention Authority, VHA, OSA, RCDs, non-profit organizations, native tribes, San Benito County	Environmental Mitigation and Monitoring Unit, Community Project Review Unit	0-10	$$
ECO-02	Partner with organizations in San Benito County to conserve and enhance San Felipe Lake.	San Felipe Lake is a critical wetland, rare plant, and wildlife resource that needs additional conservation and enhancement. Although it is in San Benito County, it receives water from and discharges into Santa Clara County via Pacheco Creek and Pajaro River, respectively. There is significant potential to allow to channels meander more, while restoring ecological function and increasing their capacity to slow, spread, and sink. Only parts of the lake are under conservation easement, and this easement may be restricted to an agricultural easement, but a land management conservation easement is important for maximizing habitat for rare species. The current management of natural areas surrounding San Felipe Lake is geared towards ranching and agriculture, and unnaturally-timed summer water releases, along with discing (for agriculture) and cattle trampling and compaction, negatively impact the fragile wetlands and adjacent alkaline grassland that fringe San Felipe Lake and its flood plain. This action includes planning, design and implementation.	Assessment/Study; Project; Partnership	San Benito County, RCDs, native tribes, land trusts, other non-profit organizations	Environmental Mitigation and Monitoring Unit	0-10	$$$
ECO-03	Develop a program and best management practices to incorporate tribal involvement, traditional ecological knowledge, and cultural resource protection into watershed actions.	Open space preservation and ecological enhancement actions provide opportunities to preserve and enhance tribal cultural resources. These opportunities can be most fully realized when tribes are engaged members of planning, implementing, and using such actions. Tribes can benefit from the reconnection with their ancestral homeland, and the land can benefit from their traditional management practices. This action includes planning and program development, led by Valley Water's Office of Racial Equity, Diversity, and Inclusion.	Partnership; Policy	Native tribes (Amah Mutsan, Tamien Nation)	Office of Racial Equity, Diversity, and Inclusion	0-10	$
ECO-04	Expand and enhance riparian and wetland habitat at the Carnadero Preserve	Valley Water's 170-acre Carnadero Preserve is for habitat enhancement and compatible farming. Some riparian and wetland habitats have been successfully restored and created at the Preserve already. Farming is a desired land use for the Preserve, but there are approximately 60 acres of farmland that do not have a water supply or that frequently flood for prolonged periods in the winter. These areas are suitable for the creation and expansion of riparian and perennial and seasonal wetland habitat that can contribute to wildlife habitat and connectivity, help store high flows and reduce downstream flow magnitude, and buffer creeks from runoff and associated water quality impairment.	Project	VHA, Regional Board, USFWS, CDFW, native tribes	Environmental Mitigation and Monitoring Unit	0-10	$

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ECO-05	Continue and expand the temperature monitoring program on Llagas, Uvas, and Pacheco Creeks and use results to inform future habitat enhancement actions.	Temperature monitoring is critical to understanding the steelhead life history stage(s) that creeks can support and making informed aquatic habitat enhancement decisions. Monitoring by Valley Water is ongoing along these creeks but will need to be continued, expanded, and analyzed to select appropriate enhancement actions and areas. Partners could play an important role in expanding the monitoring program, and applying the results to aquatic habitat enhancement plans. This action is a study and program.	Program; Partnership	NMFS, CDFW, non-profit organizations	Environmental Mitigation and Monitoring Unit, Environmental Planning Unit	0-10	$
ECO-06	Assess modified channels to identify strategies and priorities to enhance ecological conditions.	Straightened, trapezoidal channels, many of which are owned and/or maintained by Valley Water, reduce the ecological condition of riverine habitat in the watershed. The form and function of modified channels and other low scoring riverine/riparian reaches (based on CRAM scores) can be improved by expanding floodplains, adding aquatic habitat complexity, allowing for or planting more native vegetation, reducing the amount of invasive plants, and expanding and improving buffers around creeks. Valley Water can prioritize this work where it would also provide community benefits, such as trails, shade, and views of nature, and/or where channels or adjacent access roads are failing or at risk of doing so. This action includes planning and design.	Assessment	USACE, non-profit organizations, municipalities, native tribes	Environmental Mitigation and Monitoring Unit, Watershed Field Operations Unit	0-10	$
ECO-07	Identify locations and strategies to remove non-native vegetation that has encroached upon and is stabilizing gravel bars.	Gravel bars are important features of suitable habitat for steelhead, but must be able to mobilize periodically to be usable and beneficial. Drought and other environmental conditions can contribute to the expansion of non-native riparian vegetation and the armoring of historically mobile stream features. Removal of such vegetation is a relatively low-effort way of enhancing aquatic habitat, and should be prioritized on gravel bars that are in accessible reaches and otherwise highly suitable habitat for various salmonid life-stages and where the encroaching vegetation is a non-native invasive species. This action is a study to identify these locations and plan for doing the work.	Assessment; Partnership	CDFW, NMFS, non-profit organizations	Environmental Mitigation and Monitoring Unit	0-10	$$
ECO-08	Protect and Restore natural hydrologic and ecological processes for the recruitment, establishment, and management of Sycamore Alluvial Woodland on Pacheco Creek.	Pacheco Creek has one of the largest remaining and highest quality stands of SAW in California, which depend on periodic and episodic high pulse flow events (estimated to be a 10 to 20 year flood event at 9,000-12,000 cfs) to maximize sediment redistribution and scour, form coarse sediment bars and braided and cobbled-bedded channels, and to remove other woody vegetation that competes with sycamores. These conditions, coupled with natural summer dry backs, are necessary to create the substrate conditions and water availability for sycamore recruitment and establishment. Providing a natural hydroperiod for sycamore recruitment and maintenance of existing SAW stands, and the infrastructure necessary to manage both pulse flows and dry backs at the appropriate times, should be a critical part of Pacheco Creek flow management decisions, given the statewide importance of this occurrence. While other stands of SAW occur in Santa Clara County, the Pacheco Creek SAW occurrence is by far the most critical for conservation.	Assessment/Study, Project, Program, Partnership	Santa Clara Valley Habitat Agency, The Nature Conservancy	Environmental Mitigation and Monitoring Unit, Watershed Field Operations Unit	0-10	$$$$
ECO-09	Participate in development of the Pacheco Pass Wildlife Overpass Planning Project by providing technical support to Santa Clara Valley Habitat Agency and other project partners.	The Santa Clara Valley Habitat Agency and partners including Valley Water are working to install a wildlife overpass of Hwy 152 at Pacheco Pass. This project will use past and future scientific studies, including roadkill monitoring and tracking of collared mountain lion and tule elk, to identify suitable locations for a wildlife overpass. Valley Water can support this effort through information sharing and technical support. VW staff are participating in the Pacheco Pass working group.	Partnership; Project	VHA, Caltrans, Valley Transportation Authority, CDFW, USFWS	Environmental Mitigation and Monitoring Unit	0-10	$$$$

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ECO-10	Assess fish passage barriers and impediments throughout watershed and prioritize their remediation.	Physical fish passage barriers have been inventoried and should be removed or remediated, generally from downstream to upstream. Passage impediments from water extraction should also be addressed, potentially through landowner education and technical support. Llagas Creek subwatershed has the most passage impediments; Uvas Creek subwatershed has the most valuable habitat for steelhead. Prioritization depends on landowner permission and funding availability. Valley Water should remediate those that they own and in partnership with public landowners, but should also support the efforts of partners to remediate those on private property. This action includes improvements to existing wet crossings on Uvas-Carnadero Creek, some of which Trout Unlimited has already developed plans for. Wet crossing improvements also have the potential to address sediment and water quality issues.	Assessment	NMFS, CDFW, VHA, County Parks, RCDs, native tribes, Trout Unlimited	Environmental Mitigation and Monitoring Unit	0-10	$$
ECO-11	Assess and prioritize opportunities to expand and connect riparian corridors around channels, particularly where they are missing or only very narrow.	Vegetated buffers around channels, typically referred to as riparian corridors, provide myriad ecosystem services, but have been removed or are only very narrow along many miles of channel. Forest, shrubland, grassland, and wetland communities can all be appropriate to establish, depending upon physical, groundwater, and land use conditions, and could be incorporated into multiple-benefit efforts for wildlife connectivity, groundwater recharge, and/or flood risk reduction. Such efforts would need to be balanced with agricultural land uses and landowner needs, and farmland that floods frequently could be used to focus landowner outreach efforts. Valley Water should implement this action on its land and in association with other projects, but can also support the efforts of partners to implement this action on private property. This action includes planning, design, and implementation.	Assessment	VHA, OSA, RCDs, native tribes, POST, Point Blue, non-profit organizations	Environmental Mitigation and Monitoring Unit	0-10	$$
ECO-13	Partner to protect and conserve sensitive natural communities	The Upper Pajaro River Watershed still supports relics of once expansive alkali meadows, seasonal wetlands, alkaline wetlands, SAW and other sensitive natural communities. They provide critical habitat for a variety of protected plant and animal species, wildlife connectivity, and other ecosystem services. These areas should be priorities for preservation, as well as protective buffers around them. Currently very few to none of these sensitive communities are protected and many are threatened by altered hydrology, ranching and farming. By identifying conservation partners and providing funding for conservation easements, land acquisition, or other measures, Valley Water can maintain and restore these fragile areas and their ecological relationships. Examples of conservation strategies include maintaining the natural hydrology and not diverting water for agricultural or other land use in the vicinity of fragile alkaline wetlands; timing of cattle grazing/ranching activities to avoid compaction, trampling or overgrazing of wetland and adjacent upland areas; and avoiding alkali meadows during agriculture and discing activities.	Partnership	VHA, County Parks, OSA, San Benito County, land trusts, native tribes, non-profit organizations	Environmental Mitigation and Monitoring Unit	0-10	$$$

Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
ECO-14	Improve suitable spawning and rearing habitat for steelhead trout and salmon by adding coarse sediment and large wood to creeks where physically appropriate and most ecologically valuable in the Uvas Creek sub-watershed.	The addition of gravel, other coarse sediment, large wood, pools >1.5 ft deep, and restoration of pool-riffle morphology would improve habitat conditions in this very important salmonid sub-watershed and mitigate the effects of Uvas Dam on sediment supply. The Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement Santa Clara County, California (Balance Hydrologics, 2018) projects #UC1-1, UC4-3, and UC4-5 have already been identified as feasible and appropriate, but still require design and construction. Additional locations (such as UC4-1) will require planning, design, and construction.	Assessment/Study; Partnership	NMFS, CDFW, Water Board, RCDs, native tribes, non-profit organizations	Environmental Mitigation and Monitoring Unit	0-10	$$
ECO-14.1	Design and construct Uvas Creek project UC1-1 from the Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement	The Study of Santa Clara County Steelhead Streams to Identify Locations for Gravel Augmentation and Large Woody Debris Placement (Balance Hydrologics, 2018) identified Uvas Creek project UC1-1 as feasible and appropriate to add both gravel and large woody debris to increase spawning habitat, sediment mobility, and channel complexity. A gravel injection project at this location still requires design and construction.	Project	NMFS, CDFW, Water Board, RCDs, native tribes, non-profit organizations	Environmental Mitigation and Monitoring Unit	0-10	$$
ECO-14.2	Design and construct Uvas Creek project UC4-3 from the Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement	The Study of Santa Clara County Steelhead Streams to Identify Locations for Gravel Augmentation and Large Woody Debris Placement (Balance Hydrologics, 2018) identified Uvas Creek project UC4-3 as a feasible and appropriate location to add both gravel and large woody debris to increase spawning habitat, sediment mobility, and channel complexity. Valley Water's Stream Maintenance Program completed Project #2 at UC4-3 (installation of large woody debris) in 2021 to increase channel cover and complexity. Downstream reaches may also benefit from gravel placement as gravel is transported. A gravel injection project at this location still requires design and construction.	Project	NMFS, CDFW, Water Board, RCDs, native tribes, non-profit organizations	Environmental Mitigation and Monitoring Unit	0-10	$$
ECO-14.3	Design and construct Uvas Creek project UC4-5 from the Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement	The Study of Santa Clara County Steelhead Streams to Identify Locations for Gravel Augmentation and Large Woody Debris Placement (Balance Hydrologics, 2018) identified Uvas Creek project UC4-5 as a feasible and appropriate location to add gravel and large woody debris to increase spawning habitat, sediment mobility, and channel complexity. Valley Water's Stream Maintenance Program completed Project #2 and Project #3 at UC4-5 (installation of large woody debris) in 2021 to increase channel cover and complexity. A gravel injection and/or gravel bar construction project at this location still requires design and construction.	Project	NMFS, CDFW, Water Board, RCDs, native tribes, non-profit organizations	Environmental Mitigation and Monitoring Unit	0-10	$$
ECO-15	Develop Upper Pajaro Native Ecosystem Enhancement Tool to coordinate and inform long term habitat conservation planning.	There are many opportunities for conservation and ecological enhancement that can safeguard against incompatible development, reduce flood risk, improve water quality and wildlife connectivity, among other benefits and that could be undertaken by a variety of organizations. A watershed-scale tool that provides more specific guidance on where different enhancement actions should be physically and ecologically appropriate, given land ownership and the value of agricultural land uses in the watershed, will be instrumental to coordinating, prioritizing, planning, and eventually implementing such actions. The Pajaro Compass is an important step in this direction, and the Coyote Creek Native Ecosystem Enhancement Tool is an example of such a resource that is publicly available, updated, and maintained. This action includes study and planning.	Assessment/Study; Partnership	VHA, RCDs, CDFW, Water Board, NMFS, USFWS, non-profit organizations, County Parks, OSA, land trusts, native tribes	Environmental Mitigation and Monitoring Unit, Stream Maintenace Program	0-10	$$

Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
ECO-16	Incorporate restoration of areas impacted by unhoused encampments into Stream Maintenance Program.	Existing creekside encampment locations are tracked and mapped by Valley Water staff. After working with partners to reduce the prevalence of encampments within waterways and provide new housing for unsheltered individuals, impacted areas must be remediated and restored by removing trash and pollutants and replanting disturbed vegetation. A program to restore impacted areas can be integrated into the Stream Maintenance Program. Restoration of areas impacted by encampments can be utilized as mitigation credit for other Valley Water activities.	Program	VW, municipalities, Santa Clara County, non-profit organizations	Unhoused Task Force	0-10	$
ECO-17	Develop and incorporate vegetation cover guidelines for use when developing project mitigation to decrease wildfire risk to native habitats.	Complying with permit requirements for vegetation cover can result in plant and canopy densities that exacerbate the risk and severity of wildlife in riparian habitats, which are typically more resistant to wildfire, and nearby residential and commercial areas. Technical information should be evaluated to identify vegetation cover goals that result in environmental benefits without significantly increasing wildfire risks. Permitting agencies should be involved in this evaluation so that there is trust when the guidance is used in mitigation and revegetation plans. This action is a study and plan/program.	Policy	N/A	Environmental Mitigation and Monitoring Unit, Vegetation Field Operations Unit	0-10	$

Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
Water Quality Actions (WQ) - Short Term							
WQ-01	Support efforts led by Resource Conservation Districts, Natural Resource Conservation Service, and Santa Clara County Division of Agriculture to educate and assist farmers and landowners in implementing land management practices to improve water quality and enhance natural resources.	Outreach and incentive programs (funding and technical assistance) can help private landowners and farmers manage their lands and incorporate practices that can benefit them and the environment. The focus of such efforts should include pesticide and nutrient management and mitigation; agricultural runoff and fine sediment control, such as furrow alignment and vegetated buffers; water conservation; vegetation management for habitat and wildlife movement; and rodenticide reduction. Valley Water can explore ways in which it can provide funding and technical assistance in partnership with RCDs, NRCS and the Santa Clara County Division of Agriculture to promote the adoption of practices such as those listed above.	Partnership	RCDs, NRCS, Farm Bureaus, Water Board, non-profit organizations, municipalities	Environmental Planning Unit	0-10	$
WQ-02	Partner with Santa Clara County, cities, and other organizations to reach a functional zero number of unsheltered people residing on Valley Water lands along waterways.	Encampments within and adjacent to waterways and Valley Water facilities pose numerous human health, safety, operational, and environmental challenges. Valley Water can play an important role in assisting unsheltered individuals residing on its land and addressing the associated impacts to water quality, ecological resources, recreational facilities, and others. Staff are developing a framework to address these challenges, which may include enhancing services to remove trash and pollutants generated by encampments, participation in countywide collaboration to address the lack of housing and creekside encampments, utilizing Valley Water-owned property for housing development, and other efforts. This action will be implemented in a manner consistent with Board Ends Policy E-6 once it is approved.	Partnership	RCDs, Farm Bureaus, Water Board, non-profit organizations, municipalities	Watersheds Operations and Maintenance Unit	0-10	$$
WQ-03	Expand water quality monitoring program to close critical data gaps.	Valley Water, the Santa Clara Valley Urban Runoff Pollution Prevention Program, and other partners conduct regular monitoring of water quality throughout the County. This action seeks to address existing gaps in water quality data identified by staff. In the Upper Pajaro River Watershed, including Chesbro and Uvas Reservoirs. Monitoring activities may include quarterly surface and depth profiles for general water quality, seasonal sampling for algal toxins, and annual or every other year fish monitoring for mercury and other contaminants.	Program	N/A	Environmental Mitigation and Monitoring Unit, Environmental Planning Unit	0-10	$$
WQ-04	Continue to partner with the Cities of Gilroy and Morgan Hill and Santa Clara County to identify opportunities and actions to reduce bacteria and sediment loads within the Llagas and Uvas Creeks.	Partner with Cities of Gilroy and Morgan Hill and Santa Clara County (South County) on special studies, structural, and non-structural actions to improve water quality in Llagas and Uvas Creeks. Building off past sampling events, a special study was recently completed at 15 sites to understand/find the source of bacteria . This was sponsored by the South County agencies. The municipalities need additional resources to continue with future studies to help determine best solutions for bacteria and sediment in the Upper Pajaro River watershed.	Partnership	City of Morgan Hill, Santa Clara County	Environmental Planning Unit	0-10	$
WQ-05	Partner with cities to reduce and prevent specific trash dumping areas.	Valley Water has recorded areas along Llagas Creek, Uvas-Carnadero Creek, West Branch Llagas Creek, and Jones Creek in the Pajaro Watershed that experience recurring trash dumping. Partner with cities to identify dumping areas (unrelated to encampments) and track hotspots to prevent dumping and contamination.	Partnership	Cities	Watershed Field Operations Unit	0-10	$

Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
WQ-06	Partner to construct free span crossings at Carnadero Preserve to enhance water quality and fish passage conditions in Uvas-Carnadero Creek.	There are two wet ford crossings—one across Uvas-Carnadero Creek and another across Gavilan Ditch that drains to the creek—that connect farmland in and around Valley Water's Carnadero Preserve. At high flows and for much of the winter and spring, these crossings are unpassable, seasonally restricting farmers' access to certain portions of land. When they are passable, the crossings degrade water quality due to the release of fine sediment as farm equipment passes through the creek. In addition, the Uvas-Carnadero Creek crossing may impede fish passage. This action would construct free span crossings over Uvas-Carnadero Creek and Gavilan Ditch to allow year-round access to farmland and enhance aquatic habitat by improving water quality and remedying a fish passage impediment. Trout Unlimited, in cooperation with Valley Water and other affected landowners, prepared a design for a free span crossing of Uvas-Carnadero Creek, but the effort still requires permitting, coordination with multiple landowners, and construction funding.	Project	Trout Unlimited, CDFW, National Marine Fisheries Service, CHEER, Willoughby Farms, Dorado Leasing LLC	Environmental Mitigation and Monitoring Unit, Environmental Planning Unit	0-10	$$
Water Supply (WS) - Short Term Actions							
WS-01	Implement recommendations from pre-feasibility study on Flood Managed Aquifer Recharge (FloodMAR).	Flood-MAR feasibility is being analyzed within the Santa Clara County context. Given the rural nature of the Upper Pajaro River Watershed, the majority of potential Flood-MAR sites are expected to be in this watershed in areas that overlie the Llagas Subbasin. A Pre-feasibility report is complete.	Assessment/Study	Santa Clara County, California Department of Water Resources	Water Supply Planning and Conservation Unit, Groundwater Management Unit	0-10	$
WS-04	Assess areas within Llagas subbasin suitable for additional groundwater recharge projects.	Llagas Subbasin has a large potential for additional groundwater recharge. This action identifies additional locations for managed recharge ponds or in-stream facilities with collaboration from Water Supply and Raw Water Operations teams. Identification includes assessment of existing facilities, groundwater data, and a feasibility studies. The San Pedro Ponds, an existing recharge facility in the Llagas Subbasin, were found to have potential for enhancement of recharge capacity in a feasibility study. Improvements may be implemented as part of a future capital improvement project.	Assessment/Study	N/A	Raw Water Field Operations & Pipeline Maintenance Units, Groundwater Mangement Unit, Water Supply Planning and Conservation Unit	0-10	$$$$
WS-05	Implement Pacheco Reservoir Expansion Project.	The Pacheco Reservoir Expansion Project expands the storage capacity of the existing Pacheco Reservoir to 140,000 acre-feet through construction and operation of a new dam, conveyance facilities, and related appurtenant structures. Benefits of this project include a more reliable water source, improving fish habitat, and provide incidental flood risk reductions along Pacheco Creek and downstream Pajaro River. Action includes planning, design, and construction.	Project	Pacheco Pass Water District	Business Planning and Analysis Unit, Pacheco Project Delivery Unit	0-10	$$$$$

Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
Climate Change (CC) - Short Term Actions							
CC-01	Complete Reservoir Greenhouse Emission Study and evaluate results.	Valley Water is conducting a collaborative project with the University of California, Davis, to study greenhouse gas emissions from the surfaces of Almaden, Chesbro, Stevens Creek, and Uvas reservoirs. The primary goal of the study is to better estimate greenhouse gas emissions from all Valley Water reservoirs. Since January 2021, researchers have completed quarterly sampling to measure gas storage in reservoir sediments and greenhouse gas fluxes from reservoir surfaces in conjunction with monthly measurements of atmospheric and water quality data. Data collection will continue through 2023, and results will be synthesized in a final report. Valley Water will evaluate the inclusion of reservoir-related emissions into its agencywide greenhouse gas inventory and other potential next steps after the completion of this study.	Assessment/Study; Partnership	UC Davis	Unit 248	0-10	$$
Medium Term Actions							
FRR-07	Prepare Asset Management Plan for Uvas Creek	Currently, Uvas Creek possesses creek assets in the moderate risk zone and should be monitored over time. The creek reaches between Highway 25 to Union Pacific Railroad, Babbs Canyon Creek Confluence to Miller Ave, Miller Ave to Santa Teresa Blvd, and Highway 25 to Bloomfield have the most inspection data and moderate risk assets. Fine sediment, erosion, and vegetation in and around the creek pose issues to creek capacity and flood control. Valley Water will create an asset management plan to provide a more proactive approach to managing infrastructure and projects.	Project	N/A	Business Support and Asset Management Unit	10-20	$$
FRR-08	Prepare Asset Management Plan for Lower Llagas Creek	Lower Llagas Creek from Pajaro River to Buena Vista Ave has large quantities of in stream vegetation larger than Valley Water's Stream Maintenance Program can remove. This vegetation is contributing towards flood risk and the disappearance of access roads. Previous inspections of the creek have also found erosion due to rodent damage. Valley Water will create an asset management plan to provide a more proactive approach to managing infrastructure and projects.	Project	N/A	Business Support and Asset Management Unit	10-20	$$
FRR-09	Prepare Asset Management Plan for Upper Llagas Creek	Upper Llagas Creek from Rucker Avenue to Monterey Road has conditions that lower creek capacity and should be monitored over time. Opportunities for improvements include bank stabilization, vegetation control, and sediment reduction to reduce flood risk. Valley Water will create an asset management plan to provide a more proactive approach to managing infrastructure and projects.	Project	N/A	Business Support and Asset Management Unit	10-20	$$
ECO-12	Partner to support efforts to assess, enhance, and manage livestock ponds for habitat benefit.	Stock ponds are important not only for livestock but also can provide critical habitat for native wildlife that have come to depend on these reliable sources of water and wetland habitat. They help maintain biodiversity and can provide for important habitat areas if designed and managed for native species correctly. Valley Water does not own stock ponds, but can support this effort through information and cost sharing and technical support. Management techniques that can promote their use by special-status species may include periodic dredging of sediment filled ponds to increase their hydroperiods (i.e., how long they hold water), eradication of fish originally stocked by ranchers, control of nonnative American bullfrog, installation of basking structures, and fencing of the pond or a portion of the pond (depends on grazing pressures and which special-status species is being managed for).	Partnership	VHA, County Parks, State Parks, USFWS, CDFW, RCDs, native tribes	Environmental Mitigation and Monitoring Unit	11-20	$

Action Number	Priority Action	Description	Activity Type	Partner Agencies	Involved Valley Water Department	Implementation Timeframe (Years)	Valley Water Cost Estimate*
WS-03	Expand the production and use of recycled water in the South County watershed by studying projects identified in the 2021 Countywide Water Reuse Master Plan and the 2015 South County Recycled Water Master Plan Update.	South County is over 90% reliant on groundwater and there is a need to diversify the water supply portfolio of this area. The 2021 Countywide Water Reuse Master Plan and the 2015 South County Recycled Water Master Plan update provide potential projects to increase the use of recycled and purified water, such as a raw water augmentation projects in Morgan Hill and expanding the South County Recycled Water system.	Project	City of Gilroy, Santa Clara County	Recycled Water Unit	11-20	$$$
Long Term Actions							
WS-02	Complete Uvas-Llagas Transfer Pipeline condition assessment and implement recommendations	The Uvas-Llagas Transfer Pipeline was installed in 1957. The corrugated metal pipe consists of a 39-inch diameter, 14,850-foot-long reach and a 27-inch diameter, 2,375-foot-long reach. It was last inspected in 2022, where 85% of the pipeline was inspected and found to be in good condition. It is recommended to install an additional 1-2 maintenance holes in the pipeline as the current distance between access points is too far. The pipeline is a critical facility that increases redundancy in the system and provides flexibility with regards to water supply sources.	Assessment/Study; Project	N/A	Raw Water Operations Unit	21-50	$$$$
WS-06	Evaluate needed improvements to San Felipe Division Infrastructure and consider replacement projects for parts of the system.	This project implements a systematic approach to the renewal and replacement of infrastructure within the San Felipe Division, by designing and constructing improvements identified through Valley Water's 10-year Asset Management Program. Infrastructure within this project includes tunnels, large diameter pipelines, pumps, valves and other appurtenances, vaults, and associated support equipment. Reach 1 renewal and replacement activities are conducted in coordination and cooperation with San Felipe Division Reach 1 contractors and other agencies. Reaches 2 and 3 renewal and replacement are the sole responsibility of Valley Water, in coordination with USBR (as the owner of the facilities) and regulatory agencies.	Assessment/Study; Project	San Benito County Water District, United States Bureau of Recclmation	Business Planning and Analysis Unit, Raw Water Operations Unit	21-50	$$$$$
WS-07	Implement the Pacheco/Santa Clara Conduit Right of Way Acquisition	Pacheco and Santa Clara Conduits provide raw water supply to Valley Water and San Benito County Water District. Regular access to pipeline vaults is needed by Valley Water for maintenance which requires crews and vehicles to go through private land. While verbal agreements have been established with local landowners, no formal easements are in place. This project plans, designs, and constructs improvements related to the acquisition of right-of-way along the South County pipelines to provide unlimited access to Valley Water-owned pipelines and reduce conflicts with local land owners to improve response time for emergency repairs or operations.	Partnership	San Benito County Water District	Business Planning and Analysis Unit, Pipelines Project Delivery Unit	21-50	$$$

*Cost estimates corresponds to the following maximum dollar values: $ = $100 thousand, $$ = 1 million, $$$ = 10 million, $$$$ = 100 million, $$$$$ = 100+ million

Valley Water

Clean Water • Healthy Environment • Flood Protection

One Water: Guadalupe Watershed Plan

Environmental Water Resources Committee Meeting

01/22/2024

Presentation Outline

- Review One Water planning process
- Provide an overview of Flood Vulnerability Assessment Results
- Share the Priority Actions for the Guadalupe and Upper Pajaro Watersheds

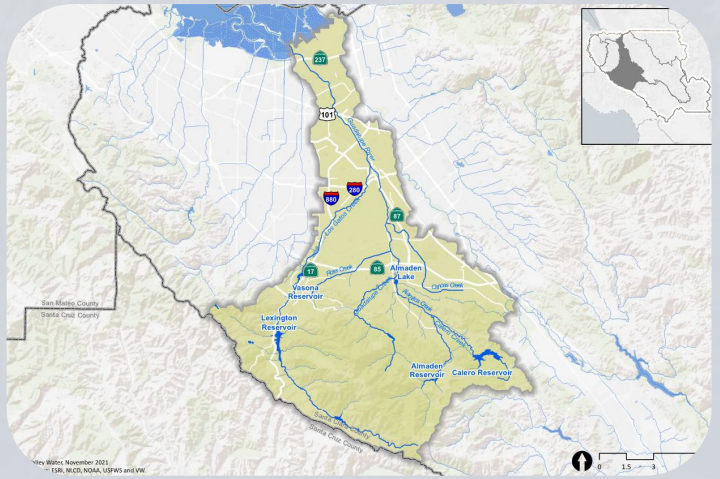
WHAT IS ONE WATER?

Valley Water's integrated master planning process for identifying priority actions and directing Valley Water's resources using measurable metrics and targets

One Water Plans

COUNTYWIDE FRAMEWORK

Provides overall vision, goals and objectives as guidance for all plans



WATERSHED LEVEL PLANS

Specific Plans for each of the five watersheds comprising Valley Water's service area

One Water Metrics

Water Supply

- Reservoir capacity
- Recycled water production
- Managed recharge capacity
- Annual water conservation

Water Quality

- Chemical integrity (e.g., pH, dissolved oxygen (DO), nutrients, pesticides, regulated contaminants)
- Biological integrity (e.g., bacteria, harmful algal blooms, invasive species, toxicity, fish tissue, mercury)
- Physical integrity (e.g., temperature, turbidity, trash)

Flood Risk Reduction

- Asset management
- Emergency action plans
- Flood forecasts
- Parcels subject to frequent flooding
- Flood risk in disadvantaged communities

Natural Ecosystems

- California Rapid Assessment Method (CRAM) scores
- Protected stream buffers
- Wildlife corridor enhancements
- Natural habitat area
- Invasive plant coverage
- Fish passage barriers
- Riparian corridor connectivity

Climate Change

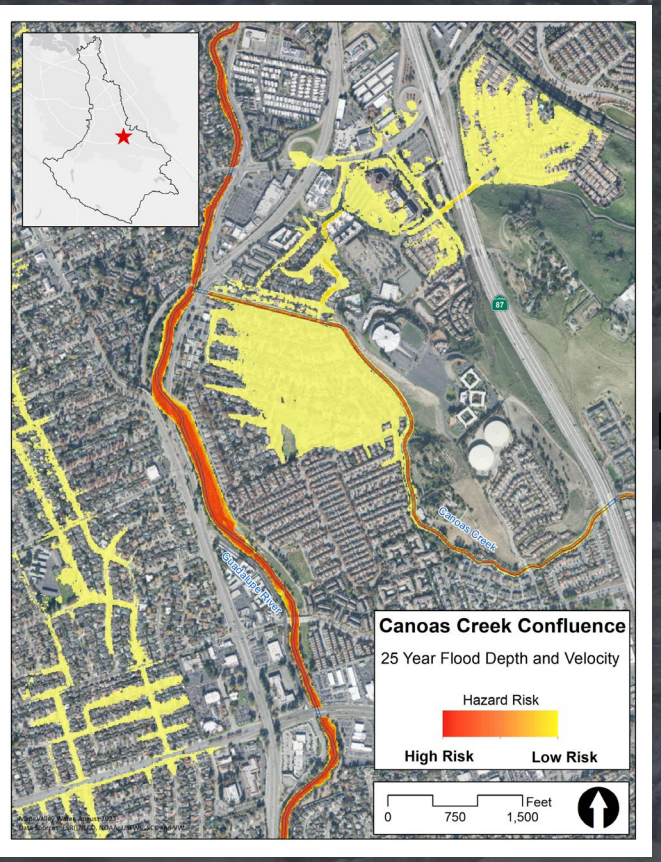
- Net GHG emissions
- Green stormwater infrastructure
- Annual water conservation
- Critical facilities subject to severe floods
- Stream channel length and connectivity

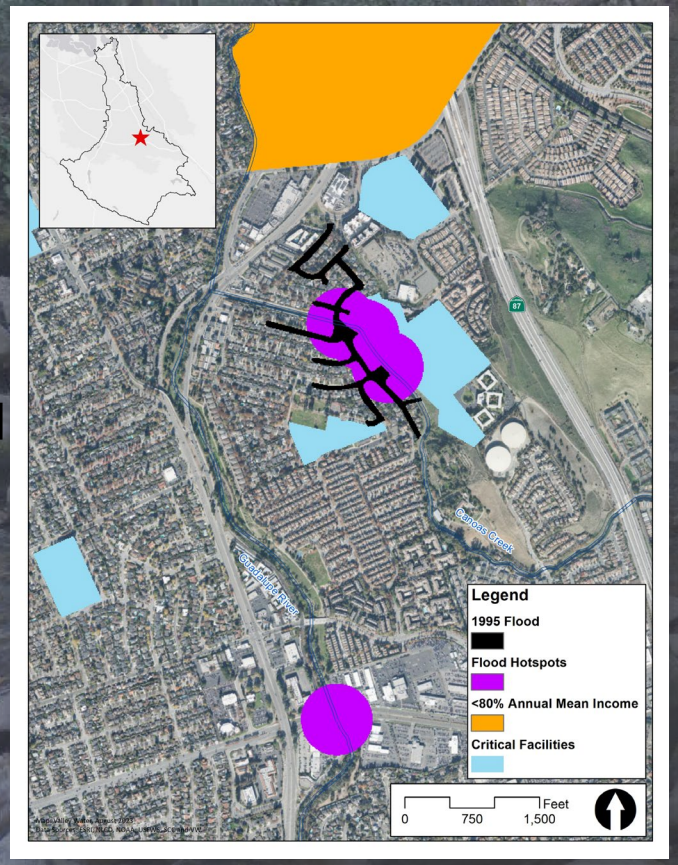
FLOOD VULNERABILITY ASSESSMENT

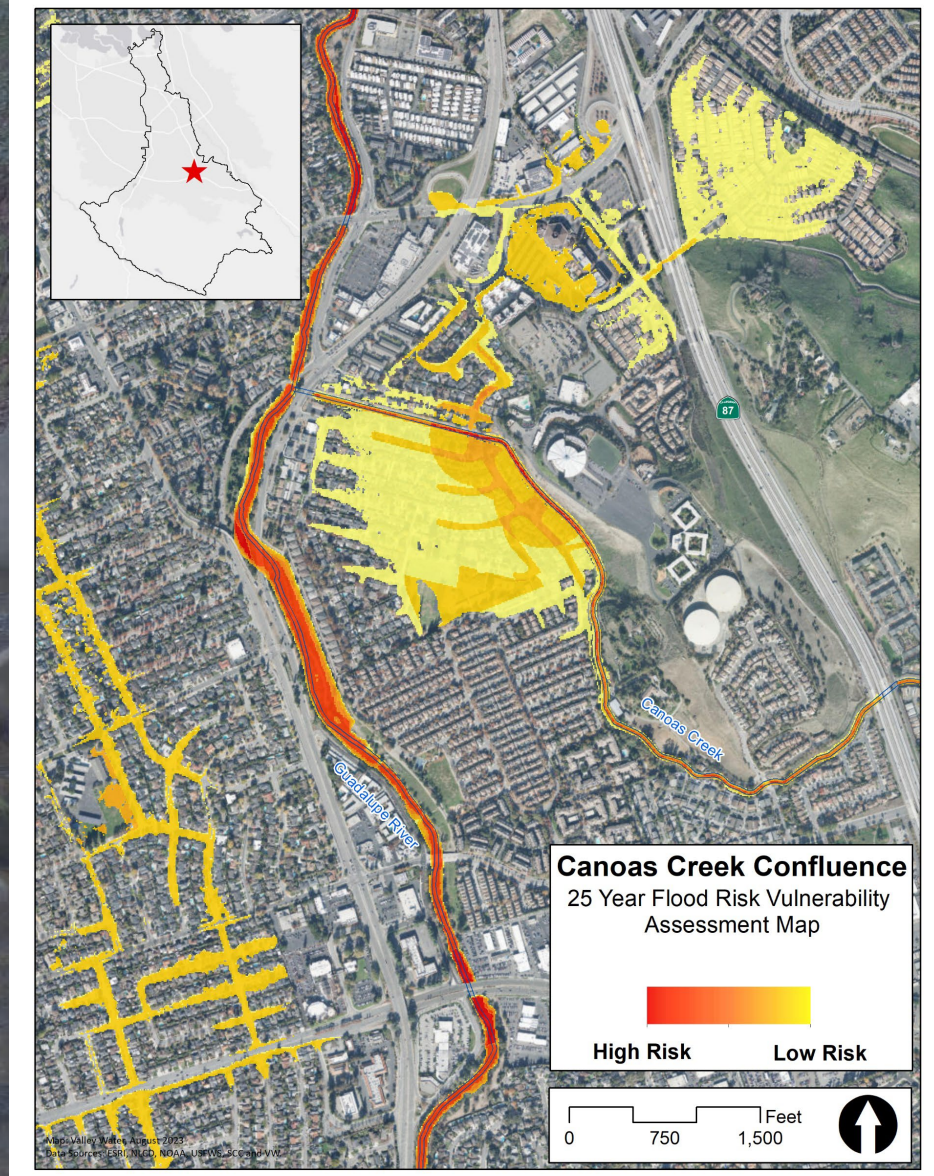
Physical

Statistical and Social

Combined Vulnerability Map

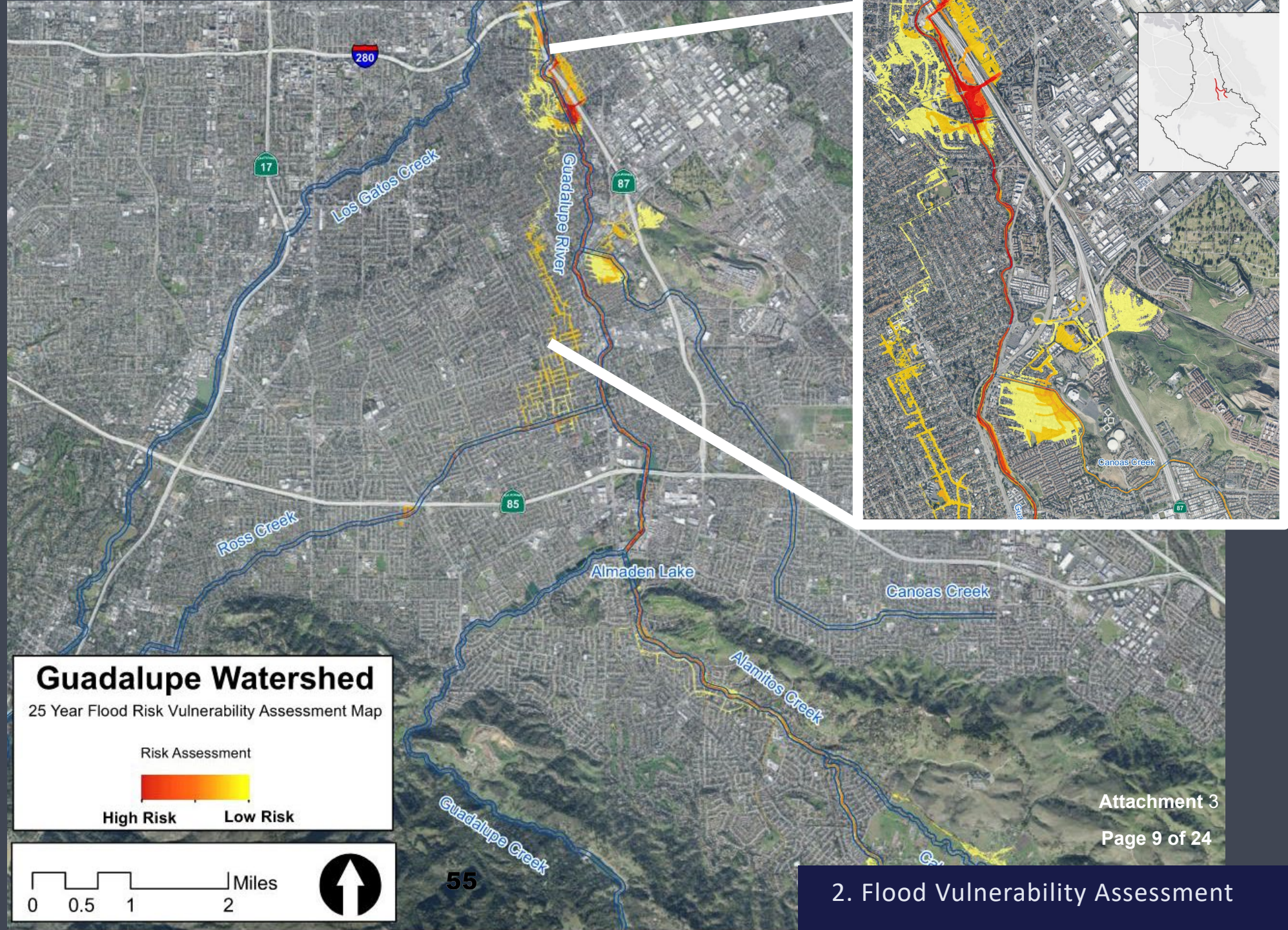






Draft Results:
25-Year or 4% Flood

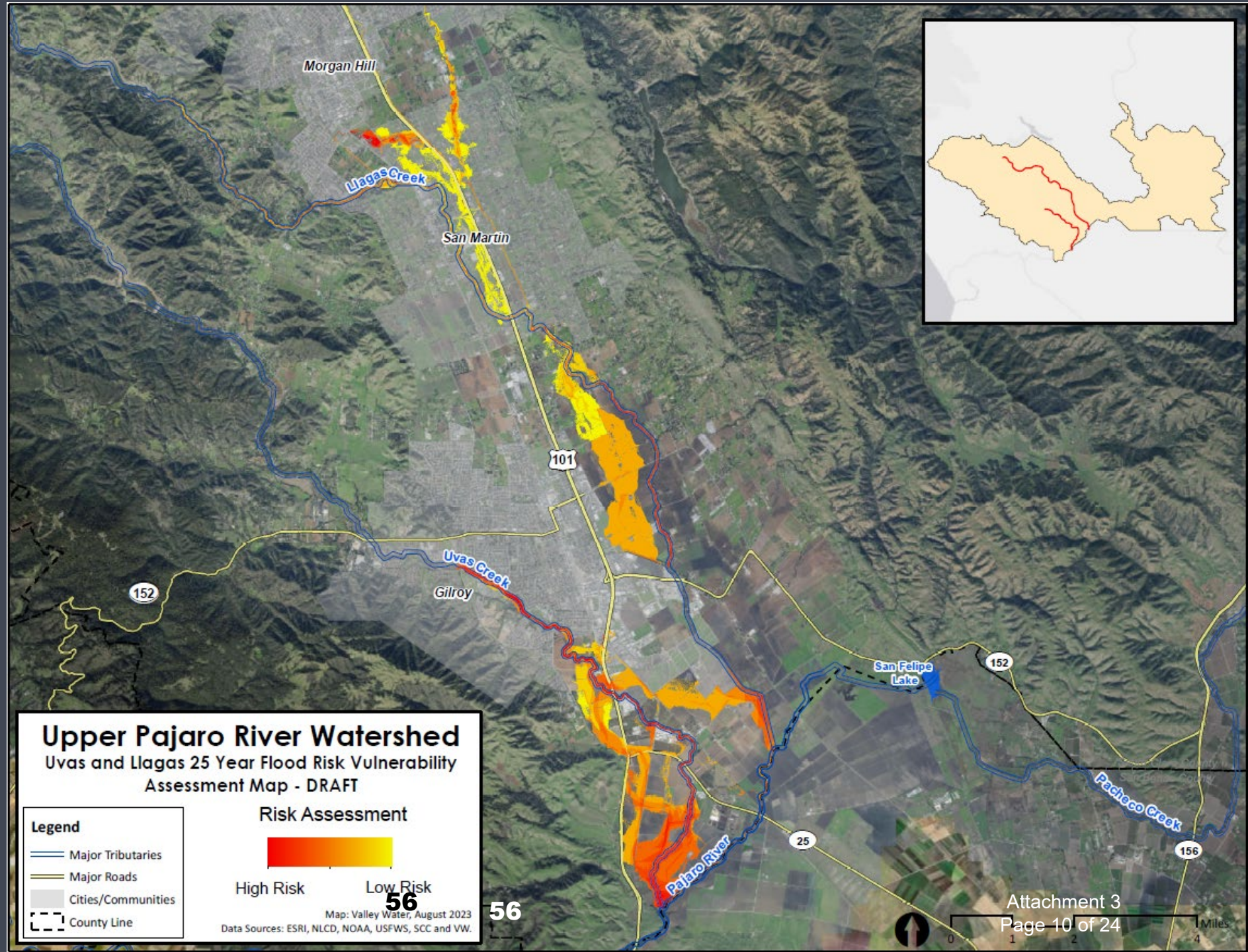
Upper Guadalupe River



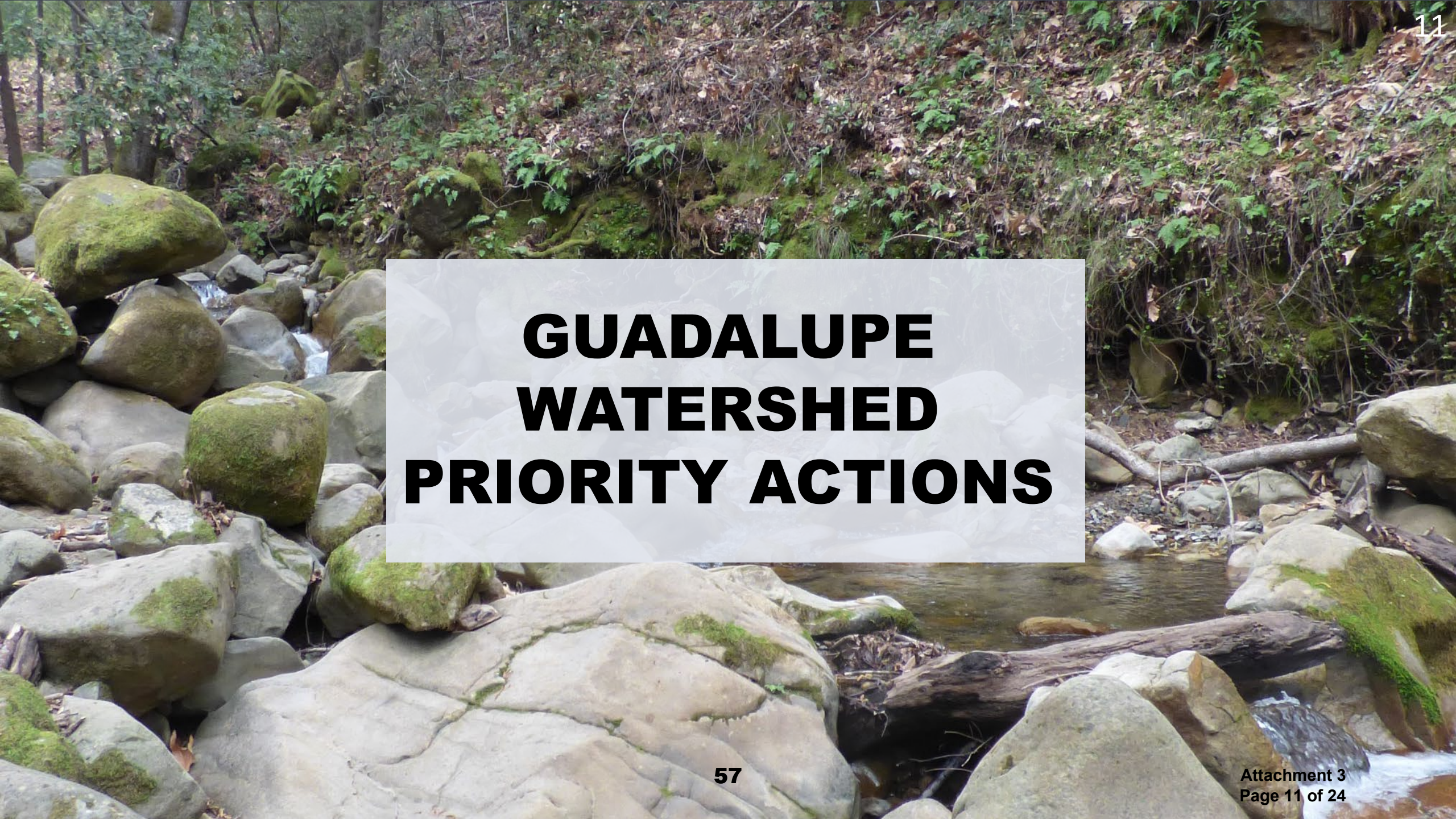
Valley Water

Draft Results: 25-Year (4%) Flood

Uvas and Llagas Creeks



Valley Water

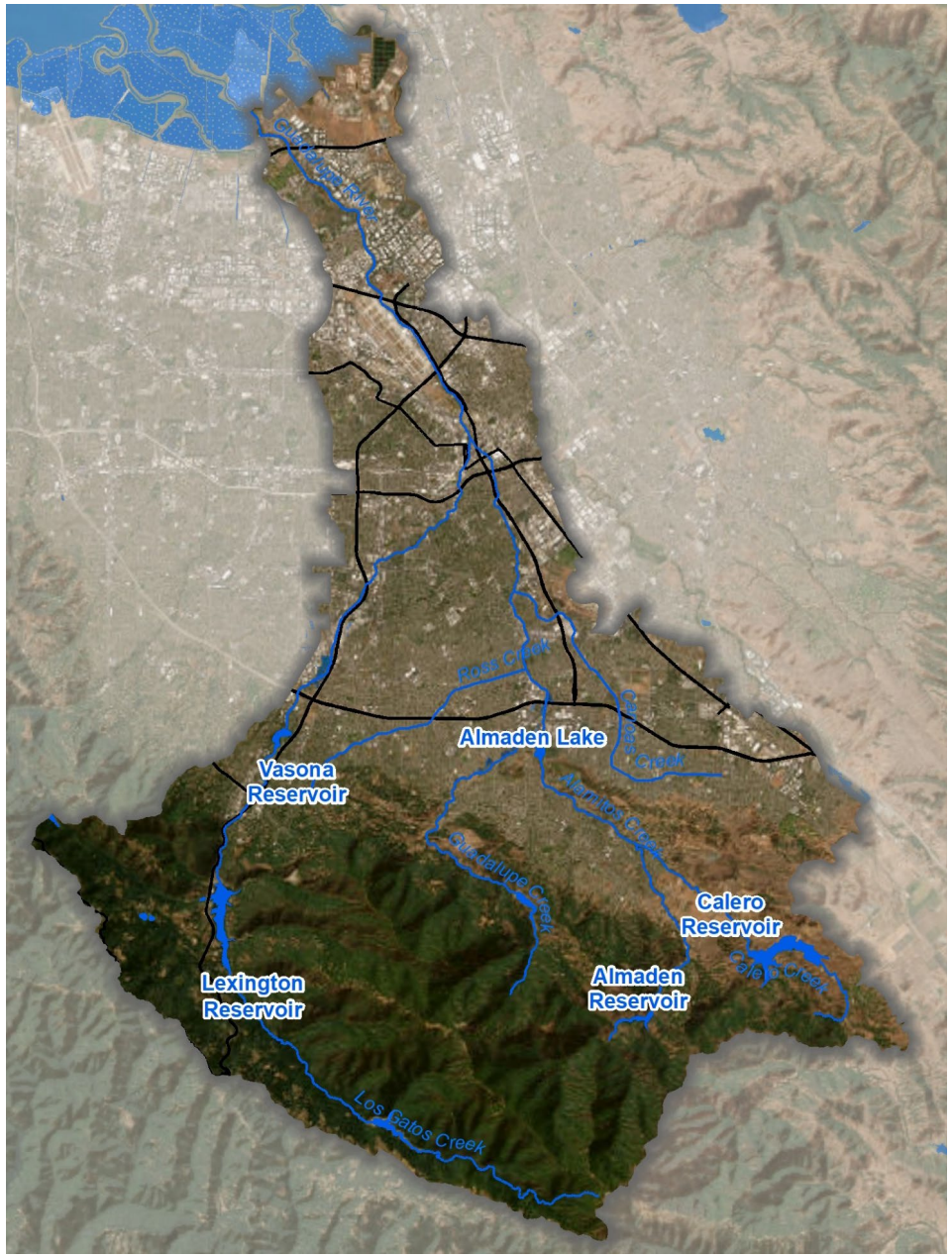


GUADALUPE WATERSHED PRIORITY ACTIONS

Watershed-wide Priority Actions

Short-Term

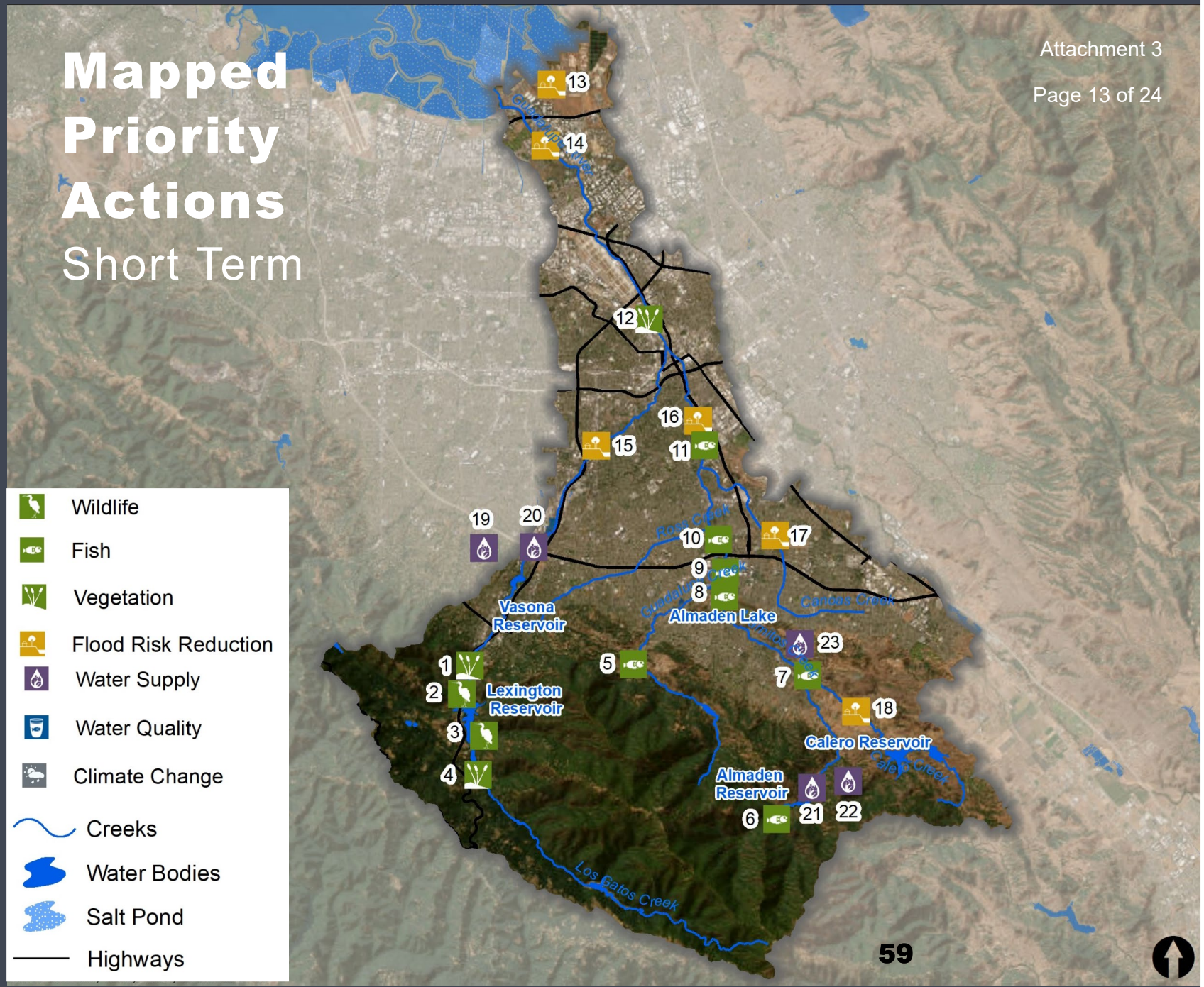
- Partner With Others To Design And Construct Alamitos Creek Project 1-1 (ECO-02a)
- Coordinate With Other Entities To Improve Fish Passage At Priority Barriers Owned By Others (ECO-05)
- Develop Program To Incorporate Restoration Of Areas Impacted By Unhoused Ecampments Into Stream Maintenance Program (ECO-08)
- Develop And Incorporate Vegetation Cover Guidelines To Decrease Wildfire Risk To Native Habitats (ECO-09)
- Assess Modified Channels To Identify Strategies And Priorities To Enhance The Ecological Conditions (ECO-19)
- Conduct Rodent Study (FRR-01)
- Model How Environmental Restoration Projects Would Reduce Flooding Downstream (FRR-09)
- Develop Program To Partner With Agencies To Facilitate Erosion Control On Private Properties (WQ-01)
- Create Or Expand Existing Water Quality Monitoring Program To Support One Water Metrics (WQ-04)
- Partner With Santa Clara County, Cities, And Other Organizations To Reach A Functional Zero Number Of Unsheltered People Residing On Valley Water Lands Along Waterways (WQ-05)



valleywater.org

Mapped Priority Actions

Short Term



Priority Actions

- 1: Explore Partnerships For Habitat Enhancement On Los Gatos Creek Downstream Of Lexington Reservoir (ECO-15)
- 2: Partner To Support The Highway 17 Wildlife And Trail Crossings Project (ECO-07)
- 3: Partner To Support The Alma Bridge Road Newt Passage Project (ECO-06)
- 4: Facilitate The Beneficial Reuse Of Large Wood And Sediment From Lexington Reservoir (ECO-16)
- 5: Design And Construct Guadalupe Creek Project 3-1 (ECO-01b)
- 6: Almaden Dam Fish Passage Feasibility Study (ECO-03)
- 7: Improve Suitable Spawning And Rearing Habitat For Salmonoids Below Calero And Almaden Dams (ECO-02)
- 8: Assess Feasibility Of Modifying Alamitos Drop Structure To Enhance Habitat (ECO-04)
- 9: Design And Constuct Guadalupe Creek Project 1-1 (ECO-01a)
- 10: Design And Construct Guadalupe River Project 1-1 (ECO-12a)
- 11: Include rearing Habitat Enchancements In The Upper Guadalupe River Project (ECO-12b)
- 12: Partner To Maximize The Native Habitat Potential Of Guadalupe Gardens (ECO-18)
- 13: South San Francisco Bay Shoreline Project Phase I (FRR-10)
- 14: Assessment And Repair Of Guadalupe River From Tasman To I-880 (FRR-06)
- 15: Conduct Engineering Study To Assess And Repair Los Gatos Creek From I-280 To Bascom Ave (FRR-05)
- 16: Complete Guadalupe River Upper From I-280 To Blossom Hill Road (FRR-07)
- 17: Canoas Creek Flood Protection Planning Study (FRR-04)
- 18: Calero Creek Floodrisk Reduction Project (FRR-11)
- 19: Complete Rinconada Water Treatment Plant Residuals Remediation And Reliability Improvement (WS-06, WS-07)
- 20: Vasona Pump Station Upgrade (WS-05)
- 21: Complete Almaden Dam Improvements (WS-01)
- 22: Complete Almaden-Calero Canal Repairs (WS-02)
- 23: Complete Santa Teresa Water Treatment Plant Electrical Improvement (WS-08)

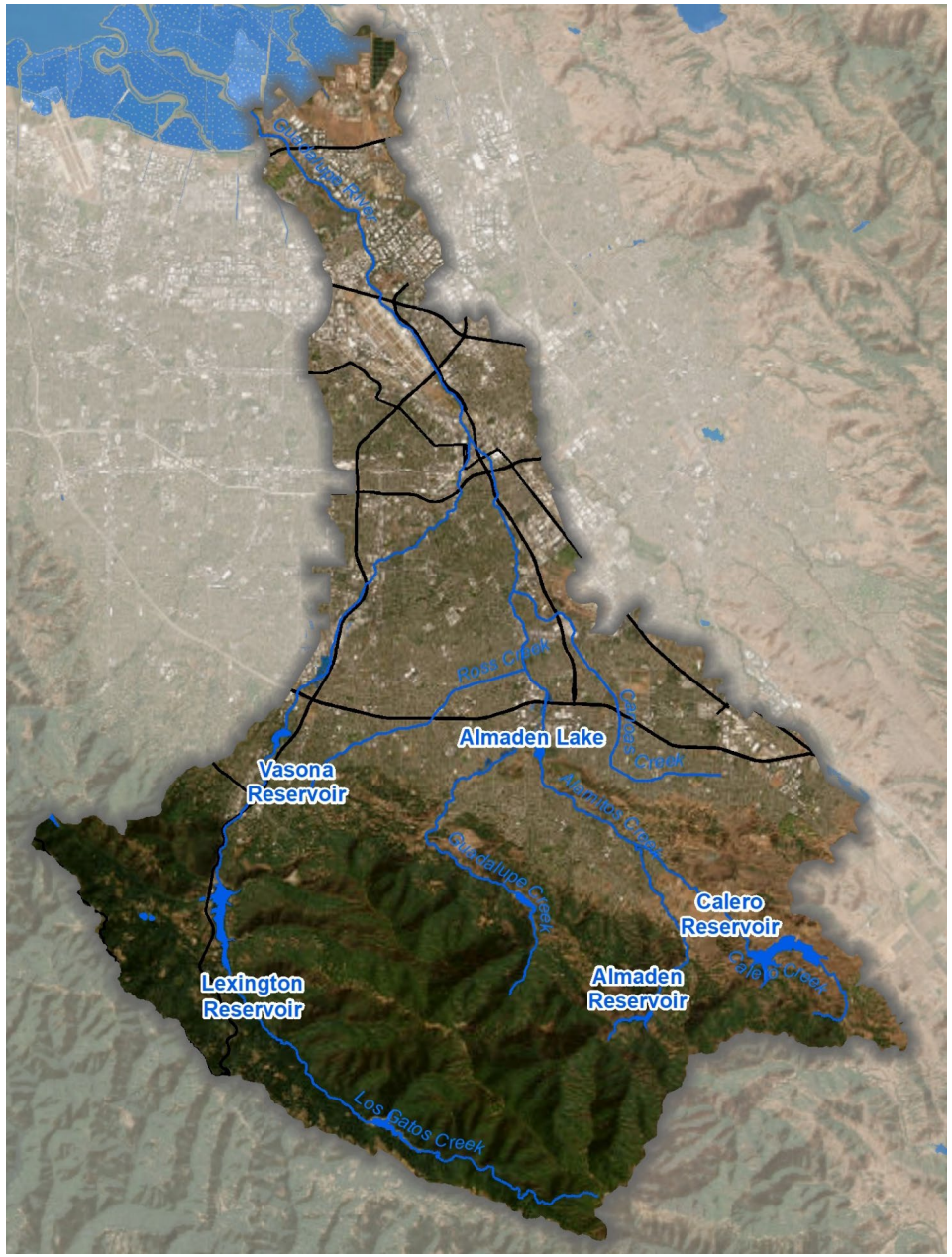
Watershed-wide Priority Actions

Medium-Term

- Support The Development Of A Single Model/Map Of Sea Level Rise That Can Be Shared With Regional Agencies (CC-01)
- Improve Suitable Spawning And Rearing Habitat For Steelhead Trout And Salmon On Guadalupe Creek Below Guadalupe Reservoir (ECO-01)
- Conduct Study Identifying Areas To Expand And Connect Riparian Corridors Around Channels (ECO-10)
- Conduct Study Identifying Areas To Expand And Enhance Sycamore Alluvial Woodland (ECO-11)
- Partner To Enhance Rearing Habitat In Guadalupe River (ECO-12)
- Partner To Support Assessment, Enhancement, And Management Of Livestock Stock Ponds For Habitat (ECO-14)
- Complete Studies And Agency Negotiations To Facilitate Safe Sediment Reuse (ECO-20)
- Perform Feasibility Study Of Using Existing Ponds And Lakes To Store Floodwater (FRR-08)
- Partner To Support Private Property Owners In The Remediation Of Legacy Mercury Mine Waste In Upper Watershed (WQ-03)
- Construct Indirect Potable Reuse (Palo-Alto) - Los Gatos Recharge System (WS-09)

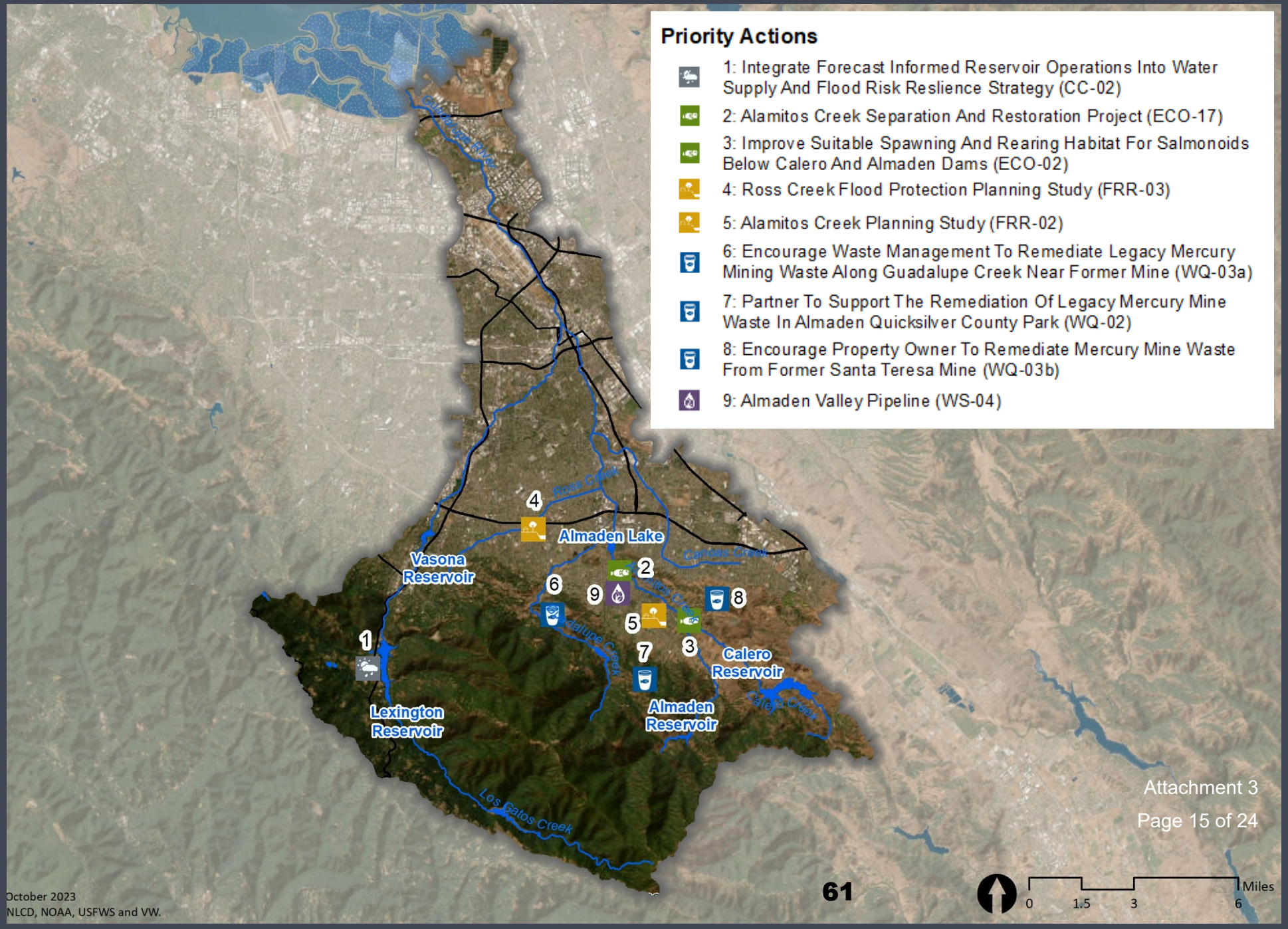
Long-Term

- Adapt FACHE Monitoring In Coordination with FACHE Adaptive Management Team (ECO-13)
- Construct Pipeline To Connect Raw Water System To Lexington Reservoir Or Vasona Reservoir (WS-10)



Mapped Priority Actions

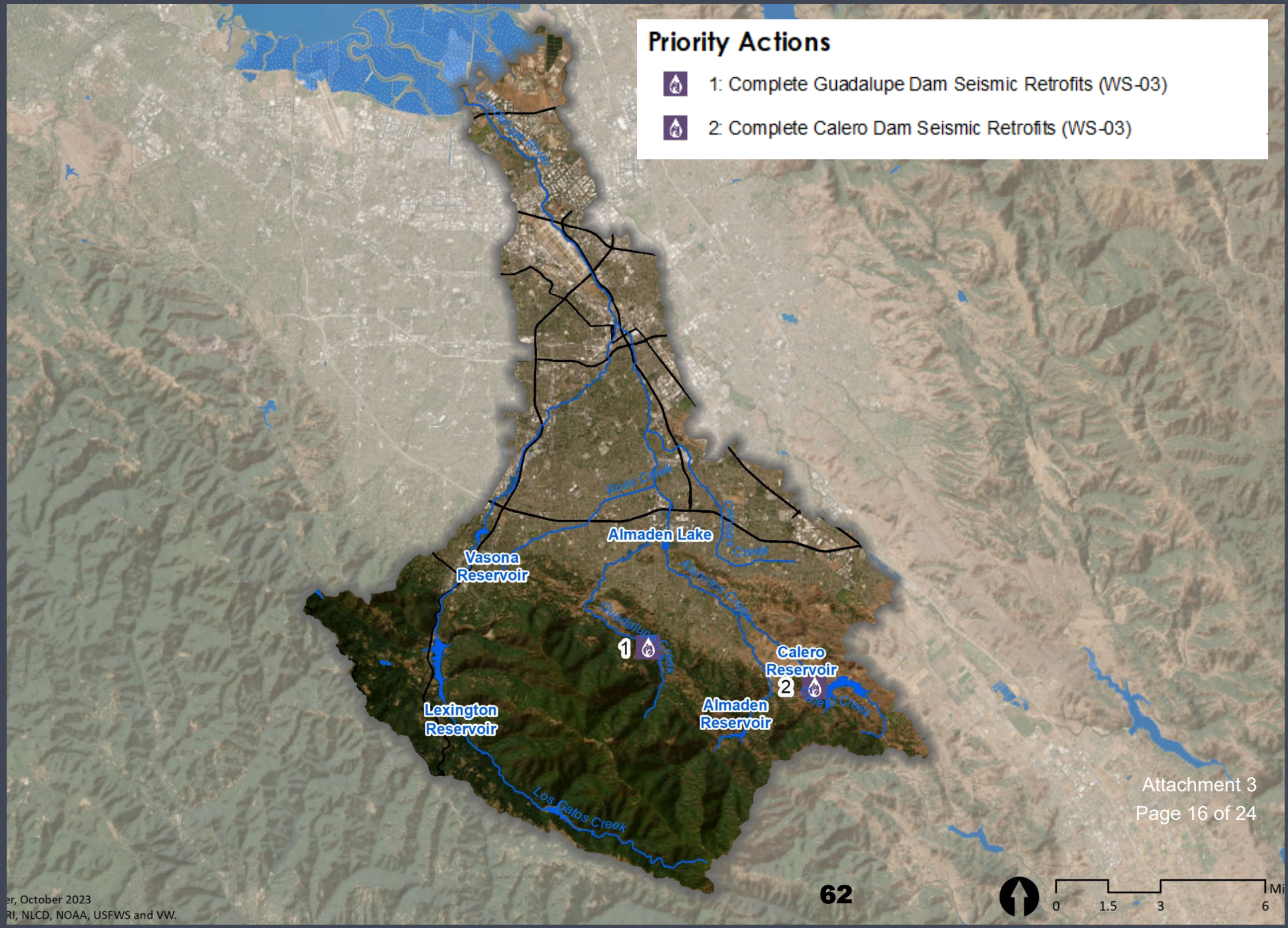
Medium Term

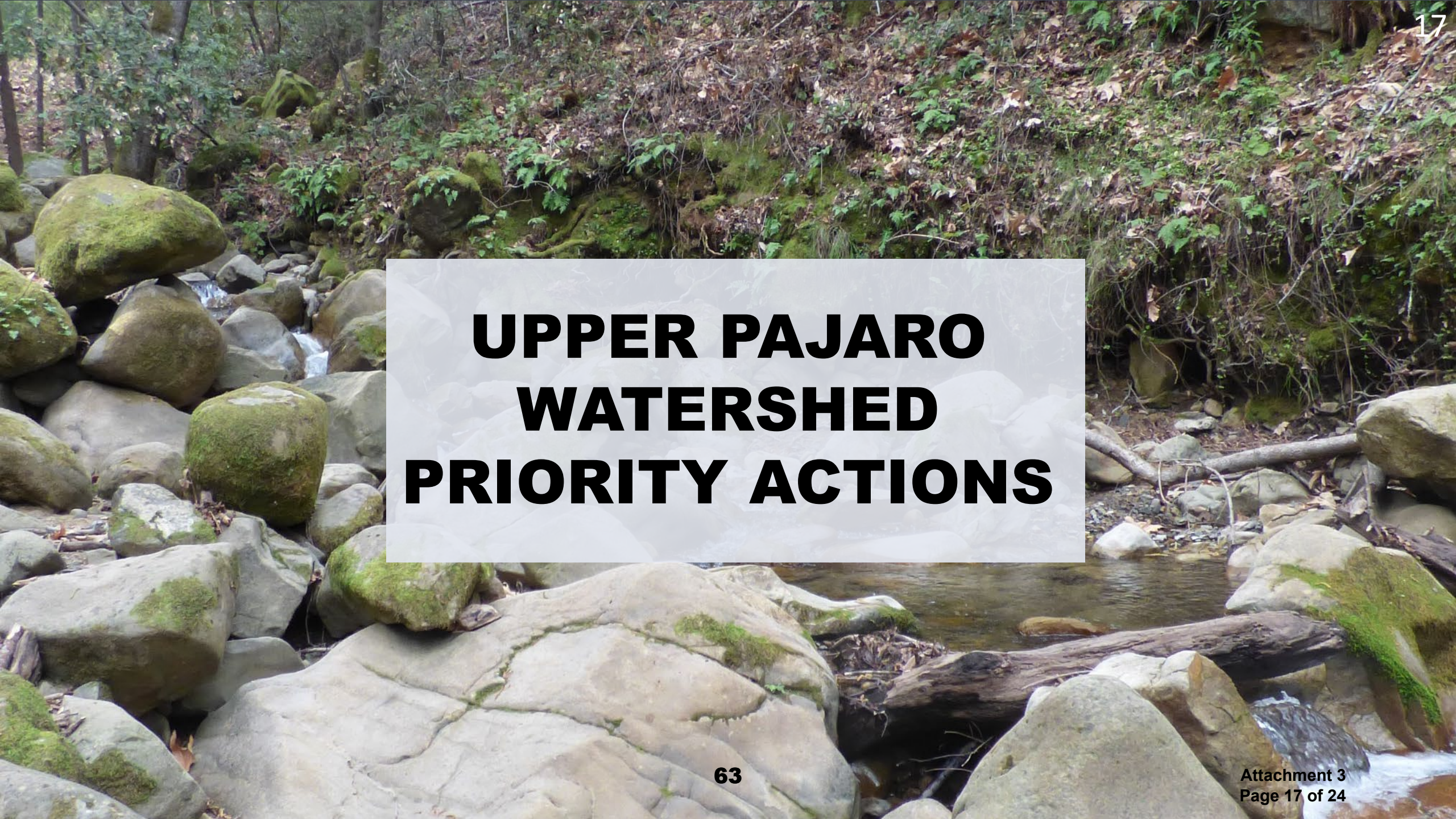


Wildlife
Fish
Vegetation
Flood Risk Reduction
Water Supply
Water Quality
Climate Change
Creeks
Water Bodies
Salt Pond
Highways

Mapped Priority Actions

Long Term





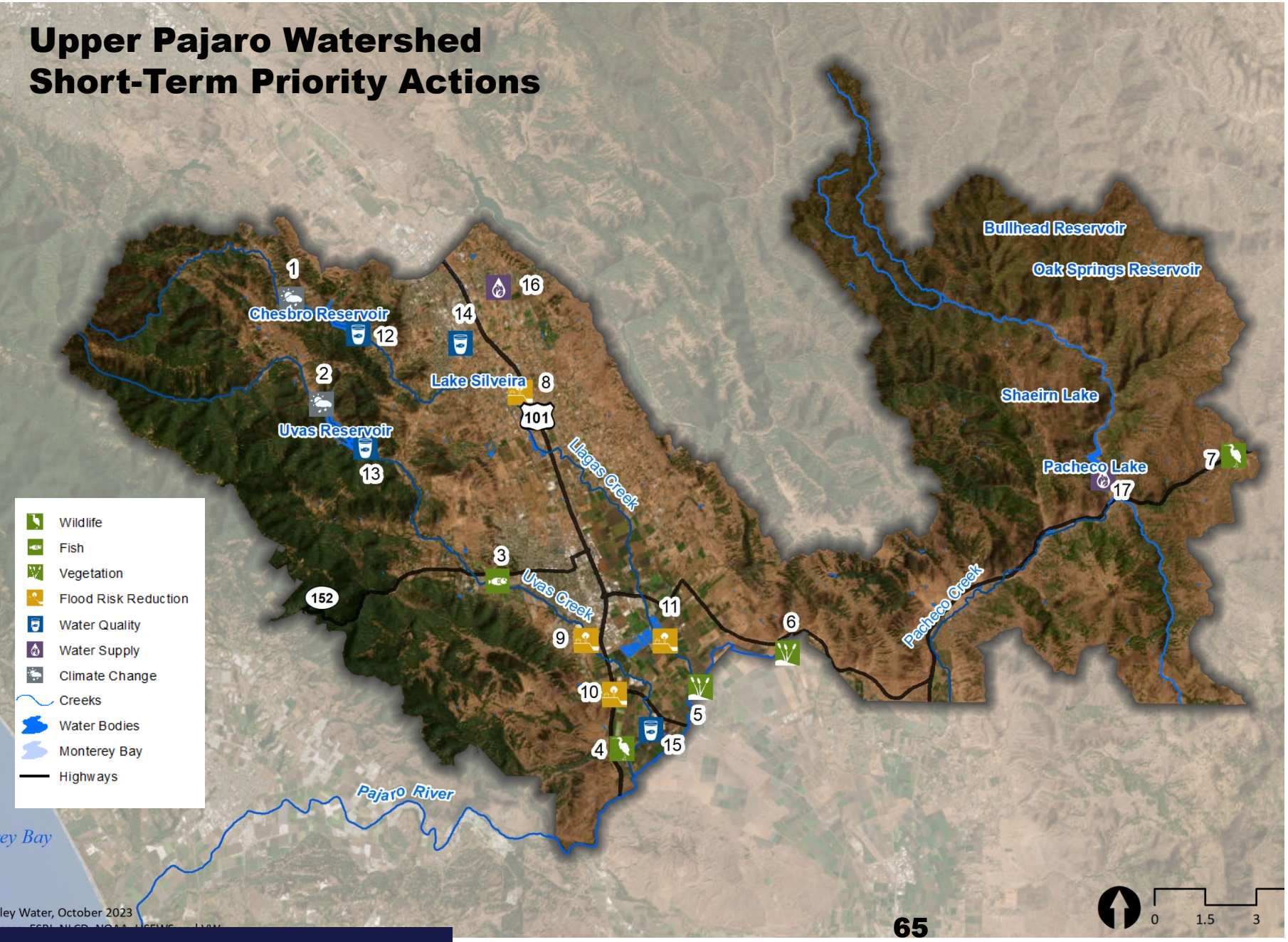
UPPER PAJARO WATERSHED PRIORITY ACTIONS

Watershed-wide Priority Actions

Short-Term

- Develop a program and best management practices to incorporate tribal involvement, traditional ecological knowledge, and cultural resource protection into watershed actions (ECO-03)
- Continue and expand the temperature monitoring program on Llagas, Uvas, and Pacheco Creeks and use results to inform future habitat enhancement actions (ECO-05)
- Assess modified channels to identify strategies and priorities to enhance ecological conditions (ECO-06)
- Identify locations and strategies to remove non-native vegetation that has encroached upon and is stabilizing gravel bars (ECO-07)
- Develop Upper Pajaro Native Ecosystem Enhancement Tool to coordinate and inform long term habitat conservation planning (ECO-15)
- Incorporate restoration of areas impacted by unhoused encampments into Stream Maintenance Program (ECO-16)
- Develop and incorporate vegetation cover guidelines for use when developing project mitigation to decrease wildfire risk to native habitats (ECO-17)
- Identify and assess open space areas adjacent to creeks compatible with flood detention and environmental protection for incorporation into future flood protection projects (FRR-01)
- Analyze flood risk by completing hydraulic modeling for the Upper Pajaro Watershed (FRR-04)
- Request updates to FEMA floodmaps and flood zone designations upon completion of hydraulic modeling (FRR-05)
- Improve coordination for intercounty flood protection and by maintaining communication and information sharing with partner agencies (FRR-10)
- Support efforts led by Resource Conservation Districts, Natural Resource Conservation Service, and Santa Clara County Division of Agriculture to educate and assist farmers and landowners in implementing land management practices to improve water quality and enhance natural resources (WQ-01)
- Partner with Santa Clara County, cities, and other organizations to reach a functional zero number of unsheltered people residing on Valley Water lands along waterways (WQ-02)
- Partner with cities to reduce and prevent specific trash dumping areas (WQ-05)
- Implement recommendations from pre-feasibility study on Flood Managed Aquifer Recharge (FloodMAR) (WS-01)

Upper Pajaro Watershed Short-Term Priority Actions



Priority Actions

1: Complete Chesbro Reservoir Greenhouse Emission Study And Evaluate Results (CC-01)

2: Complete Uvas Reservoir Greenhouse Emission Study And Evaluate Results (CC-01)

3: Improve Suitable Spawning And Rearing Habitat For Steelhead Trout And Salmon By Adding Coarse Sediment And Large Wood To Creeks (ECO-14)

4: Expand And Enhance Riparian And Wetland Habitat At The Carnadero Preserve (ECO-04)

5: Expand And Enhance Floodplain At Pajaro River Agricultural Preserve (ECO-01)

6: Parter With Organizations In San Benito County To Conserve And Enhance San Felipe Lake (ECO-02)

7: Participate In Development Of The Pacheco Pass Wildlife Overpass Planning Project (ECO-09)

8: Complete Upper Llagas Creek Flood Protection Project (FRR-06)

9: Complete Planning Study for Uvas-Carnadero Creek Flood Protection Project (FRR-11)

10: Implement US 101/SR 25 Interchange Project - Phase I (FRR-03)

11: Complete Planning And Design For Lower Llagas Creek Capacity Restoration Project (FRR-02)

12: Implement Regular Quarterly Monitoring At Chesbro Reservoir (WQ-03)

13: Implement Regular Quarterly Monitoring At Uvas Reservoir (WQ-03)

14: Identify Opportunities And Actions To Reduce Bacteria And Sediment Loads Within The Llagas And Uvas Creeks (WQ-04)

15: Partner To Construct Free Span Crossings At Carnadero Preserve To Enhance Water Quality And Fish Passage Conditions In Uvas-Carnadero Creek (WQ-06)

16: Assess Areas Within Llagas Subbasin Suitable For Additional Groundwater Recharge Projects (WS-04)

17: Implement Pacheco Reservoir Expansion Project (WS-05)

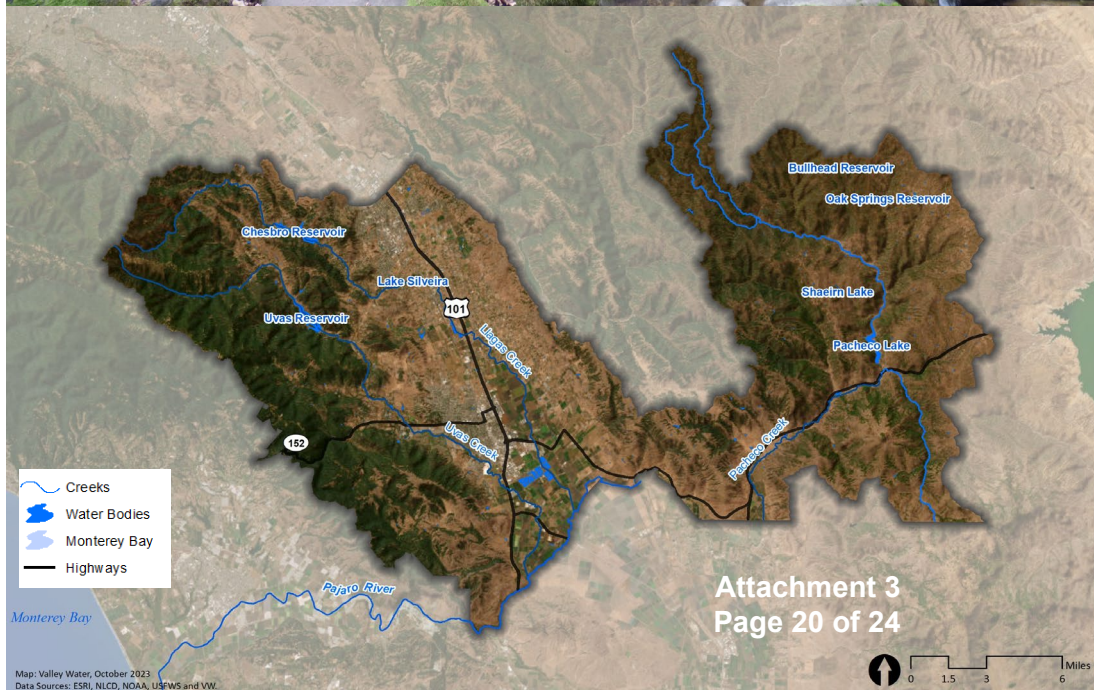
Watershed-wide Priority Actions

Medium-Term

- Assess fish passage barriers and impediments throughout watershed and prioritize their remediation (ECO-10)
- Assess and prioritize opportunities to expand and connect riparian corridors around channels, particularly where they are missing or only very narrow (ECO-11)
- Partner to protect and conserve sensitive natural communities (ECO-13)
- Expand the production and use of recycled water in the South County watershed by studying projects identified in the 2021 Countywide Water Reuse Master Plan and the 2015 South County Recycled Water Master Plan Update (WS-03)

Long-Term

- Partner to support efforts to assess, enhance, and manage livestock ponds for habitat benefit (ECO-12)
- Complete Uvas-Llagas Transfer Pipeline condition assessment and implement recommendations (WS-02)
- Evaluate needed improvements to San Felipe Division Infrastructure and consider replacement projects for parts of the system (WS-06)
- Implement the Pacheco-Santa Clara Conduit Right of Way Acquisition (WS-07)



Upper Pajaro Watershed
Medium-Term Priority Actions

Priority Actions

1: Protect And Restore Natural Hydrologic And Ecological Processes For The Recruitment, Establishment, And Management Of Sycamore Alluvial Woodland On Pacheco Creek (ECO-08)

2: Prepare Asset Management Plan For Uvas Creek (FRR-07)

3: Prepare Asset Management Plan For Upper Llagas Creek (FRR-09)

4: Prepare Asset Management Plan For Lower Llagas Creek (FRR-08)

Next Steps

- Incorporate feedback from Committee
- Present Priority Actions to appropriate Board Advisory Committees
- Finalize Watershed Plan
- Seek adoption of Plan by Board of Directors

QUESTIONS

Valley Water

Clean Water • Healthy Environment • Flood Protection

File No.: 24-0095

Agenda Date: 1/22/2024
Item No.: 4.4.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Receive Update on the Development of Valley Water's Wildfire Resiliency Plan.

RECOMMENDATION:
Receive update on the development of Valley Water's Wildfire Resiliency Plan. This is a discussion item, and the Committee may provide comments if applicable. However, no action is required.

SUMMARY:
California has been experiencing an increase in the frequency and severity of wildfire events. This increase can be partially attributed to accumulated vegetation fuel loads, historic fire suppression, natural climate variability, and human-induced climate change. Drought periods in the last 10 years have increased tree mortality and fuel loading in riparian areas. Standing or fallen dead vegetation can pose a significant risk of wildfire spread in wildland and riparian areas. Moreover, invasive plant species are constantly moving into these areas and can cause a rapid change in the fire regime. They can increase the density of vegetation, create fuel ladders that can push wildfires into the upper tree canopy, and compete with native species for water and resources.

Wildland and riparian areas managed for fuel loads are less likely to experience catastrophic wildfires that can spread and cause extensive tree mortality and other negative impacts on ecology and infrastructure. Targeted vegetation management activities can reduce the potential for severe wildfires by reducing fuel load. Wildfires on unmanaged lands likely will have more substantial ecosystem and resource impacts.

Wildfire preparation and prevention are a part of Santa Clara Valley Water District's (Valley Water) lands management objectives, and to enhance its efforts relative to wildfire risk mitigation, Valley Water is developing a comprehensive Wildfire Resiliency Plan (WRP) that will systematically coordinate wildfire planning across operations while weighing responsibility to safeguard land rights and valued resources and assets. The WRP, which will focus on vegetation as a fuel source for wildfires, will provide land management approaches and recommended treatment actions to reduce fire severity while protecting and supporting sensitive ecological resources and other identified Valley

Water lands and infrastructure.

The WRP will evaluate wildfire risk on all Valley Water fee and easement lands. With the predominance of Valley Water land rights existing along riparian corridors, the WRP will emphasize the protection of sensitive ecological resources present within these environments. The WRP will also include select water utility infrastructure and other Valley Water assets within Valley Water land rights. However, the WRP, will not reassess lands and/or facilities already covered in existing Valley Water wildfire mitigation efforts. For example, the treatment plants and pumping plant facilities and surrounding land covered in the January 2022 Recommended Wildfire Risk Reduction Treatments Plan for Valley Water Facilities report are not being reassessed as part of this effort.

The WRP will define a comprehensive program of strategic fuels and fire management based on sound science and state-of-the-art risk modeling to reduce fire hazards on Valley Water lands while maintaining and supporting ecological health. The WRP will focus on areas where wildfire hazards generate the greatest risks to resources and assets as defined through detailed wildfire risk assessments. The WRP will also define and prioritize vegetation management treatments to protect the most at-risk assets and resources, coordinate fuels management activities amongst a variety of Valley Water programs and functions with a nexus to wildfire risk mitigation, and establish a decision-making framework to respond to landscape changes resulting from wildfire as well as managed fuel load reduction work. Additionally, the WRP will establish approaches and mechanisms for inter-agency and community coordination for fuel management activities and include ways to identify and incorporate new technologies and methods of fuel management over time to adaptively maximize program efficiency.

Wildfire Risk Assessment and Modeling Framework

Valley Water recognizes that a key component of an effective WRP is the utilization of a science-based risk assessment and modeling framework to establish risk profiles to guide operational decisions for wildfire risk mitigation. To that end, Valley Water is working with a consultant to develop a comprehensive risk assessment and modeling framework to delineate risk profiles associated with Valley Water land rights and High-Value Resources and Assets (HVRAs) and establish a risk strategy and prioritization tool to inform and fully leverage the allocation of resources to mitigate wildfire impacts.

Wildfire risks to Valley Water land rights and HVRAs will be assessed using a custom risk framework that considers wildfire likelihood and intensity across the landscape. This framework will incorporate multiple data sources, factor in quantitively ranked HVRAs, consider the unique regulatory environment of Valley Water lands, and generate integrated wildfire risk profiles that assess the susceptibility of Valley Water land rights and HVRAs to wildfire hazards.

This effort will also generate fuel reduction treatment strategies based on field conditions, identify and create areas of managed vegetation to reduce the occurrence, spread, and severity of wildfires to Valley Water lands, and define and prioritize vegetation management treatments to mitigate wildfire risk. Additionally, this effort will provide mechanisms to regularly review and update risk models to continually enhance Valley Water's adaptive capabilities to recognize and mitigate wildfire risk

factors.

High-Value Resources and Assets (HVRAs)

HVRAs are valued landscape features that can be impacted beneficially or detrimentally by wildfire. Resources are naturally occurring (e.g., serpentine areas), have ecological significance (e.g., riparian habitat), or are a regulatory requirement (e.g., revegetation mitigation sites), whereas assets represent human-made features (e.g., stream gages). HVRAs represent a critical component of integrated wildfire risk profiles as they constitute a set of important variables that are incorporated within the risk assessment and directly influence risk profile outputs. The HVRA characterization component identifies the resources and assets to include in the wildfire risk assessment, their locations across the landscape, their susceptibility to wildfire, and their relative importance. The WRP will focus on reducing fuel loads to protect important resources from wildfires.

Through extensive collaboration with subject-matter experts in numerous Valley Water business areas, a series of Valley Water-specific HVRAs have been identified for incorporation into the wildfire risk assessment. HVRAs, which range from ecological resources to water utility assets, have been categorized and sub-categorized to establish a defined hierarchical structure for organization (Table 1). Utilizing a broad range of data sources, the locations, and boundaries of HVRAs within Valley Water land rights have been geospatially referenced and mapped within Geographic Information System (GIS) applications. This comprehensive mapping effort results in the creation of a consolidated spatial layer of HVRAs that can be evaluated against wildfire hazards and provide for multi-layer risk assessments.

Table 1:

HVRA	Sub-HVRA
Property	Valley Water Leased Property
	Valley Water Structures
	Recreation Sites
Ecological Areas	Sensitive, Threatened, and Endangered Plant Species
	Sensitive, Threatened, and Endangered Invertebrate Species
	Sensitive, Threatened, and Endangered Riparian Species
	Sensitive, Threatened, and Endangered Instream Species
	Sensitive, Threatened, and Endangered Terrestrial Species
	Valley Water Mitigation Sites (Terrestrial and Aquatic)

Utility Infrastructure	Stream and Precipitation Gages
	Turnouts
	Dams, Reservoirs and Appurtenances
	Pipelines (above-grade)
	Canals
	Instream Dams
	Bladder Dams
	Percolation Ponds
	Chemical Feed Block Houses
Access	Maintenance Roads
	Recreation Trails

Following the identification, categorization, and mapping of HVRAs, the relative importance of each HVRA was determined through a priority ranking process. Determining relative importance helps delineate risk in areas where multiple HVRAs overlap and allows for comparing risks across different spatial areas that house different HVRAs. Using relative importance scores allows for summarization and visualization of risks in a single metric, factors in the consequences of HVRA exposure to wildfire, and reflects fire management objectives and priorities.

Evaluation criteria have been developed to determine the relative importance of each HVRA. A summary of the evaluation criteria is as follows.

- **Uniqueness/Rarity/Endemism** - a rating of the commonness or uniqueness of a sub-HVRA to the project area.
- **Replaceability** - rating how quickly a sub-HVRA can be recovered, replaced, or restored after a wildfire disturbance.
- **Legal requirement to protect** - a rating on the extent to which the sub-HVRA is protected by law, regulation, or ordinance.
- **Critical Infrastructure** - a rating of systems and assets, whether physical or virtual, when incapacitated or destroyed, would have a debilitating impact on security, economic security, public health or safety, or any combination thereof.
- **Valley Water Assets of Interest** - a rating of areas of special importance or interest to Valley Water that are not required by law.

Using the evaluation criteria, Valley Water subject-matter experts from multiple business areas have participated in a survey to rank the relative importance of each HVRAs. Subject-matter-experts have assigned a score of 1 (least valued) to a score of 5 (most valued) to each HVRA for each criterion. For each HVRA, scores are then averaged across all survey responses and scoring criteria, and the results are ranked to identify the relative importance of each HVRA. Ranking HVRAs helps balance the approach for the protection of resources and assets from wildfires and will guide wildfire risk

mitigation efforts.

Wildfire Behavior Modeling

Fire behavior modeling will be conducted to determine the likelihood of fire at any given location and the potential intensity that the fire could burn. Inputs to the model will include landscape conditions (vegetation types and surface fuels) within the study area, local weather, and areas of higher ignition source probability. Fire behavior modeling outputs (likelihood and potential intensity) will be mapped to show where high fire intensity overlaps with high fire probability and will then serve as inputs to evaluate the susceptibility of HRVAs to wildfire hazards. This protocol will be applied to defined locations and will also be applicable at a variety of geospatial scales, including at the watershed level down to a small reach of creek.

The susceptibility of HVRAs to wildfire hazards will be determined through several steps, including an exposure analysis, the development of HVRA response functions, and an effects analysis. An exposure analysis is the characterization of wildfire likelihood and intensity where HVRAs occur. Response functions characterize how specific HVRAs may positively or negatively respond to wildfires of varying intensity. Finally, an effects analysis is the integration of wildfire hazard (likelihood and intensity) and HVRA vulnerability (exposure and susceptibility) to produce a comprehensive measure of wildfire risk. This process will ultimately result in the generation of geospatial integrated risk profiles that delineate the relative risks to HVRAs at defined locations and provide the basis for the prioritization of vegetation treatment to mitigate risks.

Using the integrated risk profiles generated from the wildfire behavior modeling, a recommended set of vegetation treatment methods and strategies to mitigate wildfire risk will be established. Valley Water lands will be grouped into units based on similar treatment objectives for each area. Treatment sequencing will be established, and the intensity and type of treatment identified (e.g., hand thinning, mastication). Land units will have initial treatment prescriptions as well as long-term maintenance prescriptions, which will be geospatially represented in GIS to be used for annual planning. Additionally, a prioritization workflow will be developed to focus on where treatments will have the highest return on investment (ROI) in terms of risk reductions.

Wildfire Resiliency Plan (WRP)

Once the Wildfire Risk Assessment and Modeling Framework is complete, Valley Water will finalize the comprehensive WRP to implement efforts to reduce wildfire risk and protect our valuable resources and assets. A fuel management policy will be developed and incorporated into the WRP to provide high-level guidance and support for fuel management activities The WRP will directly incorporate the outputs from the risk assessment effort and include comprehensive details on the process and modeling efforts, as well as how the risk assessment framework can be monitored, updated and integrated with existing Valley Water programs such as the Integrated Invasive Plant Management Program (IIPMP) and other vegetation management programs. Detailed vegetation management strategies to mitigate wildfire risk will be incorporated, including vegetation treatment prescriptions and priorities, best management practices, and the regulatory considerations and

processes needed to undertake work (i.e., identification of CEQA and/or NEPA compliance and permitting). The WRP will also establish a planning and implementation process, including a prioritization process for annual planning, and strategies for the selection of work areas and treatments based on multiple factors and variables.

The WRP will detail the strategies and approaches for broad inter-agency collaboration with adjacent and underlying jurisdictions to coordinate fuel load reduction activities. Additionally, the WRP will establish approaches to support and enhance wildfire fighting capabilities through the identification and maintenance of essential access points, maintenance roads, and staging areas to support emergency fire access and management activities.

The full scope of the WRP will be established with extensive internal collaboration, and with guidance from a qualified consultant team that will be secured through a forthcoming Request for Proposal (RFP) process to be initiated in Fiscal Year 2024-25. Following a CEQA/NEPA and environmental permitting process, the finalized WRP will serve as a living document. The WRP will be regularly updated based on completed work, landscape changes, and any new regulations that may emerge. This ongoing adaptation ensures the plan remains effective and relevant in a dynamic environment. This proactive approach will safeguard valuable resources and assets, contributing to a more resilient future.

ENVIRONMENTAL JUSTICE IMPACT:
The WRP will comprehensively evaluate wildfire risk along all Valley Water land rights and will factor in the intersection of wildfire risks with underserved communities when deploying fuel load reduction projects.

ATTACHMENTS:
Attachment 1 - PowerPoint

UNCLASSIFIED MANAGER:
Luz Penilla, 408-630-2228

Wildfire Resiliency Plan Update

Environmental and Water Resources Committee, January 22, 2024

Increasing Wildfire Risk

Rise in Frequency and Size:

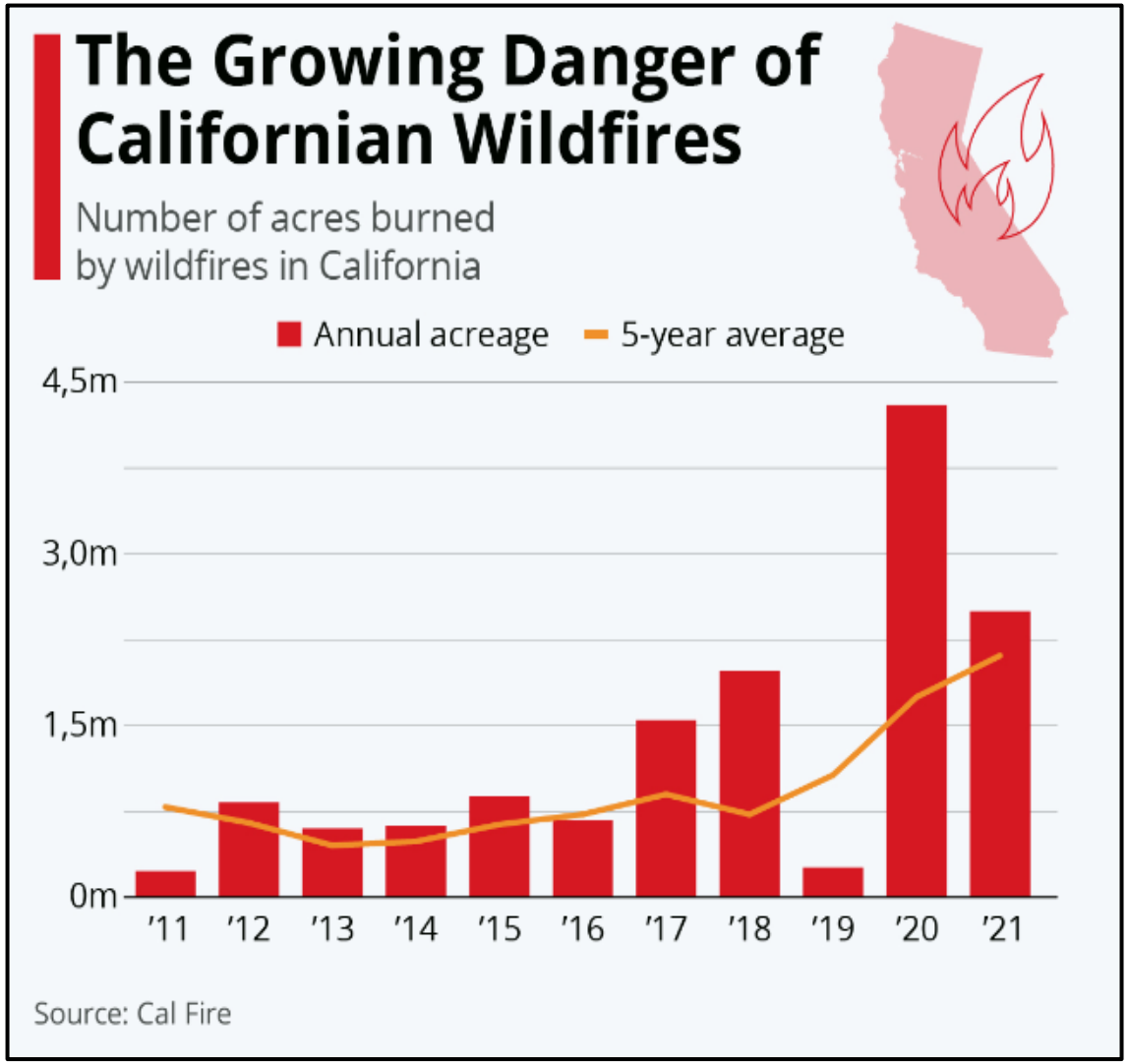
- Over the past 5-years, California fires account for 22% of total acres destroyed by wildfires in the U.S.
- 2023: 7,000+ wildfires, 320,000+ acres burned.

Watershed Risk:

- Increased susceptibility to flooding and erosion.
- Degradation of water quality and impact to supplies.

Ecological Impact:

- Impact to sensitive flora and fauna.
- Reduction in habitat range.



Wildfire Resiliency Plan (WRP)

Purpose:

- Mitigate wildfire impacts to Valley Water land rights and High Value Resources and Assets (HVRAs).
- Strategically incorporate wildfire mitigation planning in an integrated and programmatic way.

Scope:

- County-wide plan covering Valley Water fee and easement properties with a focus on riparian areas.

Implementation Goals:

- Identify highest-risk areas through wildfire risk assessments.
- Define and prioritize vegetation treatments to protect at-risk assets and resources.
- Create decision-making framework to address landscape changes from wildfires and fuel reduction efforts.

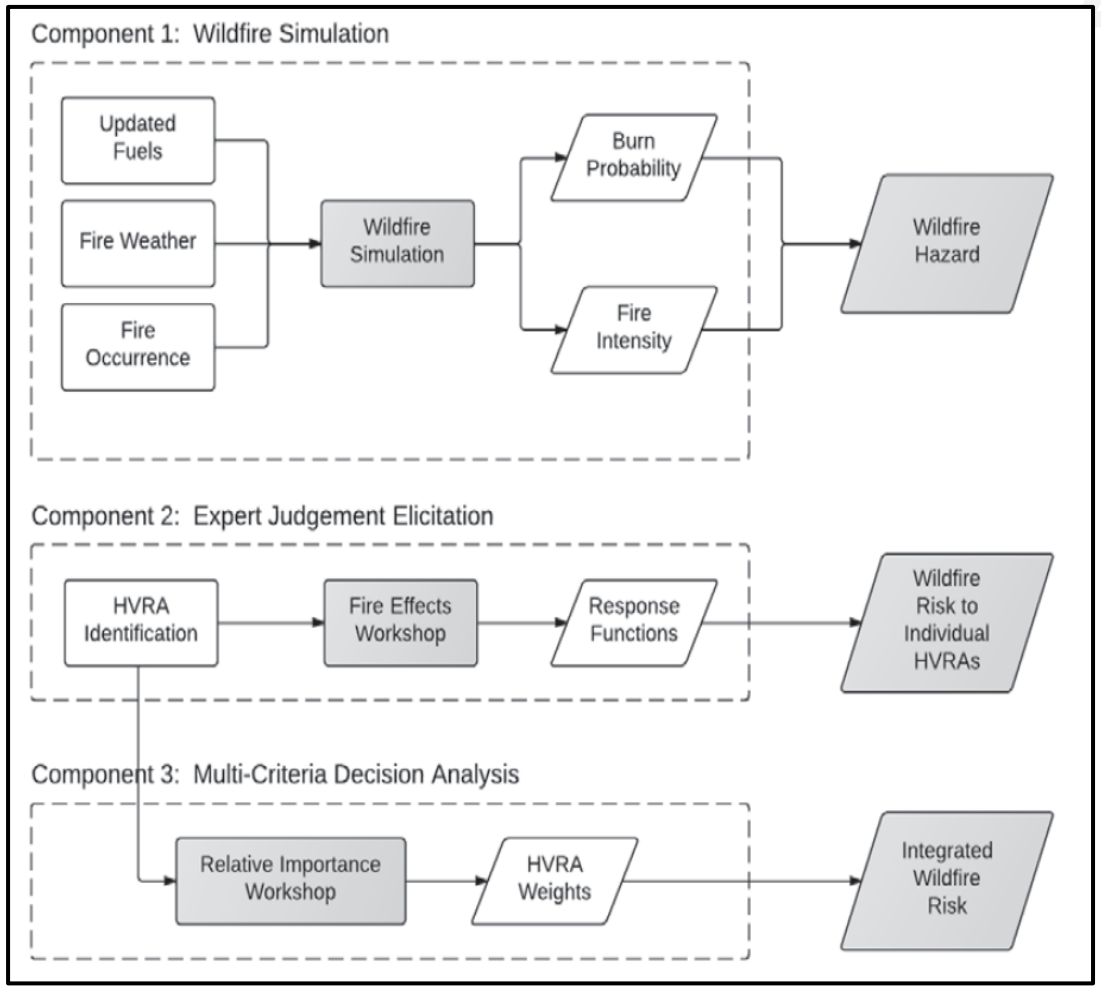
Framework

Wildfire Risk Assessment & Modeling

- Develop integrated wildfire risk profiles assessing susceptibility of High Value Resources and Assets (HVRAs).
- Create a geospatial framework incorporating multiple data sources and variables.
- Build a prioritization tool to inform resource allocation for wildfire impact mitigation.

Key Outputs

- Identified fuel reduction treatment strategies and targeted vegetation management areas.
- Enhanced capabilities to recognize risk factors and respond to landscape changes.



Thompson et al. 2013

valleywater.org

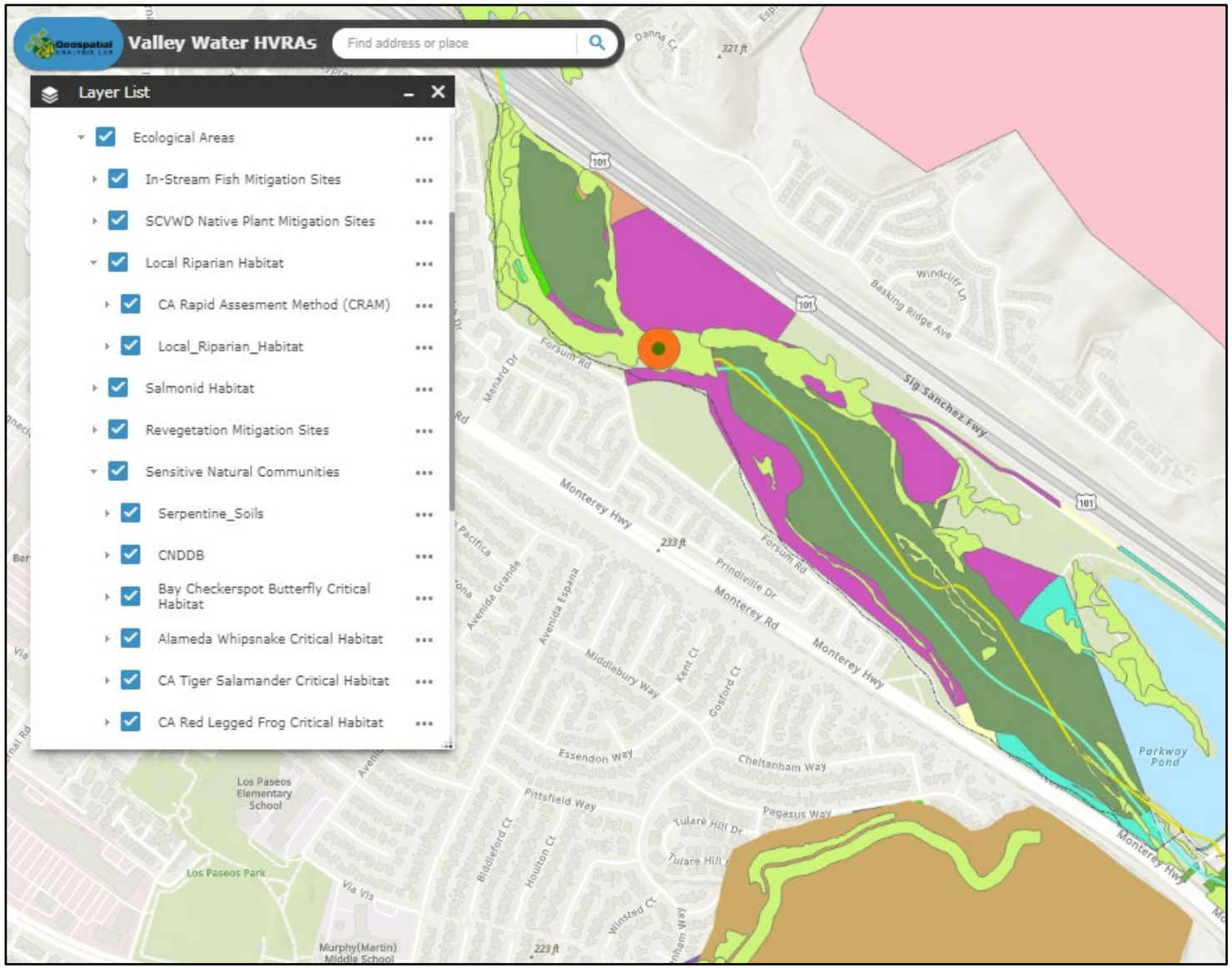
High Value Resources & Assets (HVRAs)

- Valued landscape features impacted beneficially or detrimentally by wildfire.
- Resources are naturally occurring (e.g., serpentine areas), have ecological significance (e.g., riparian habitat), or are a regulatory requirement (e.g., revegetation mitigation sites).
- Assets represent human-made features (e.g., stream gages).
- Incorporated within the risk assessment and directly influence risk profile outputs.
- Fuel load reduction activities will mitigate susceptibility of HVRAs to wildfire risk.

HVRA	Sub-HVRA
Property	Valley Water Leased Property
	Valley Water Structures
	Recreation Sites
Ecological Areas	Sensitive, Threatened and Endangered Plant Species
	Sensitive, Threatened and Endangered Invertebrate Species
	Sensitive, Threatened and Endangered Riparian Species
	Sensitive, Threatened and Endangered Instream Species
	Sensitive, Threatened and Endangered Terrestrial Species
	Valley Water Mitigation Sites (Terrestrial and Aquatic)
Utility Infrastructure	Stream and Precipitation Gages
	Turnouts
	Dams, Reservoirs and Appurtenances
	Pipelines (above-grade)
	Canals
	Instream Dams
	Bladder Dams
	Percolation Ponds
	Chemical Feed Block Houses
Access	Maintenance Roads
	Recreation Trails

HVRA Mapping

- Locations and boundaries of HVRAs within Valley Water land rights.
- Mapped within Geographic Information System (GIS) applications.
- Consolidated spatial layer can be evaluated against wildfire hazards and provide for multi-layer risk assessments.



HVRA Ranking – Relative Importance

- HVRA priority ranking process using scoring criteria.
- Delineate and compare risk in areas where multiple HVRAs overlap.
- Factors in the consequences of HVRA exposure to wildfire.
- Reflects fire management objectives and priorities.
- Guides wildfire risk mitigation activities.

Scoring Criteria

- **Uniqueness/Rarity/Endemism** - a rating of the commonness or uniqueness of a sub-HVRA to the project area.
- **Replaceability** - rating of how quickly a sub-HVRA can be recovered, be replaced, or restored after a wildfire disturbance.
- **Legal requirement to protect** - a rating on the extent to which the sub-HVRA is protected by law, regulation, or ordinance.
- **Critical Infrastructure** – a rating of systems and assets, whether physical or virtual, when incapacitated or destroyed would have a debilitating impact on security, economic security, public health or safety, or any combination thereof.
- **Valley Water Assets of Interest** – a rating of areas of special importance or interest to Valley Water that are not required by law.

HVRA Scoring Criteria – Expanded Example

Score	Description
5	**High benefit and critical to Valley Water's mission or operations -** Asset of special interest has high ecological and/or operational benefit and is critical to support Valley Water's mission and/or an ongoing or planned program or initiative.
4	**Enhanced benefit and important to Valley Water's mission or operations -** Asset of special interest has enhanced ecological and/or operational benefit and is important to support Valley Water's mission and/or an ongoing or planned program or initiative.
3	**Some benefit and nexus to Valley Water's mission or operations -** Asset of special interest has ecological and/or operational benefit and has a nexus to Valley Water's mission and/or an ongoing or planned program or initiative.
2	**Minor benefit and limited connection to Valley Water's mission or operations -** Asset of special interest has minor ecological and/or operational benefit and has limited connection to Valley Water's mission and/or an ongoing or planned program or initiative.
1	**No benefit and not directly connected to Valley Water's mission or operations -** Asset of special interest has limited or no ecological and/or operational benefit and is not directly connected to Valley Water's mission and/or an ongoing or planned program or initiative.
N/A	**Not applicable** - This criterion does not apply to this sub-HVRA.
Not Sure	**Not sure –** Not sure how to rate this sub-HVRA or I do not feel qualified to do so.

HVRA Ranking

- Using the evaluation criteria, Valley Water subject-matter-experts have assigned a score of 1 (least valued) to a score of 5 (most valued) to each HVRA for each criterion.
- Scores are then averaged across all survey responses and scoring criteria, and the results are ranked to identify the relative importance of each HVRA.

Calculations for Ranking HVRAs (Simplified Example)

Replaceability

HVRA	Sub-HVRA	Survey 1	Survey 2	Survey 3	Mean	Rank
Ecological Areas	Revegetation mitigation sites	5	5	5	5.00	1
Property	Valley Water leased property	2	3	3	2.67	2
Utility Infrastructure	Chemical feed block houses	3	3	2	2.67	2

Uniqueness

HVRA	Sub-HVRA	Survey 1	Survey 2	Survey 3	Mean	Rank
Ecological Areas	Revegetation mitigation sites	5	4	5	4.67	1
Property	Valley Water leased property	2	3	2	2.33	2
Utility Infrastructure	Chemical feed block houses	2	1	2	1.67	3

Overall

HVRA	Sub-HVRA	Replaceability	Uniqueness	Mean	Rank
Ecological Areas	Revegetation mitigation sites	5.00	4.67	4.84	1
Property	Valley Water leased property	2.67	2.33	2.50	2
Utility Infrastructure	Chemical feed block houses	2.67	1.67	2.17	3

Final Sub-HVRA Ranking

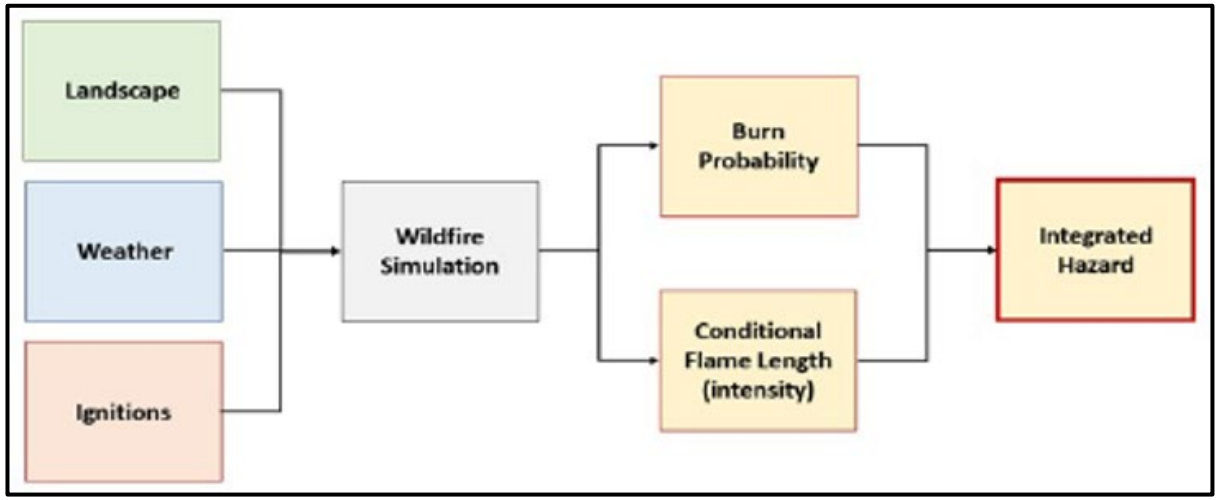
Wildfire Behavior Modeling

- Determine the likelihood and potential intensity of fire at any given location within the study area.

- Inputs to the model include:
  - landscape conditions (vegetation types and surface fuels),
  - local weather, and
  - areas of higher ignition source probability.

- Modeling outputs (likelihood and potential intensity) are mapped to show where high fire intensity overlaps with high fire probability.

- Geospatial modeling outputs serve as inputs to evaluate the susceptibility of HRVAs to wildfire hazards.



HVRA Susceptibility Analysis

- Using the wildfire behavior modeling outputs, HVRA susceptibility is determined:
  - **Exposure analysis:** characterization of wildfire likelihood and intensity where HVRAs occur.
  - **Response functions:** how specific HVRAs may positively or negatively respond to wildfires of varying intensity.
  - **Effects analysis:** integration of wildfire hazard (likelihood and intensity) and HVRA vulnerability (exposure and response functions) to produce a comprehensive measure of wildfire risk.

Integrated risk profiles delineate the relative risks to HVRAs and provide the basis for the prioritization of vegetation treatment to mitigate risks.

Treatment Methods and Strategies

- Using the integrated risk profiles, a recommended set of vegetation treatment methods and strategies will be established.
- Lands will be grouped into units based on similar treatment objectives for each area.
- Initial treatment prescriptions as well as long-term maintenance prescriptions for annual planning.
- A prioritization workflow will be developed to focus where treatments will have the highest return on investment (ROI) in terms of risk reductions.

Before/After Fuel Reduction Work – Canoas Creek

Next Steps

- **Complete Wildfire Risk Assessment and Modeling Effort (FY24-25)**
- **Finalize Wildfire Resiliency Plan (FY25-26)**
  - Fuel Management Policy
  - Risk assessment outputs
  - Detailed vegetation management strategies
  - Strategies and approaches for inter-agency collaboration
  - Integration with existing and planned Valley Water programs
  - Approaches to support and enhance wildfire fighting capabilities
- **CEQA/NEPA and Environmental Permitting (FY26-TBD)**
- **Implementation, Monitoring and Updating (ongoing)**

QUESTIONS?

Santa Clara Valley Water District

File No.: 24-0128

Agenda Date: 1/22/2024
Item No.: 4.5.

COMMITTEE AGENDA MEMORANDUM
Environmental and Water Resources Committee

Government Code § 84308 Applies: Yes ☐ No ☒
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:
Review and Receive Updates on the Environmental and Water Resources Committee's Working Groups.

RECOMMENDATION:

A. Review and receive updates on the Environmental and Water Resources Committee's Working Groups, and

B. Provide comments to the Board on implementation of Valley Water's mission applicable to working groups' recommendations.

SUMMARY:
At the Committee's October 2021, meeting, the Committee approved the working groups' structure to align with the issues and policies that the Board of Directors has on their work plan and calendar for the fiscal year.

The Board will continue to keep the Committee informed of the working groups' activities and results.

This will be a standing agenda item.

BACKGROUND:

The District Act provides for the creation of advisory boards, committees, or commissions by resolution to serve at the pleasure of the Board.

Accordingly, the Board has established Board Committees, which bring respective expertise and community interest, to advise the Board, when requested, in a capacity as defined: prepare Board policy alternatives and provide comment on activities in the implementation of the District's mission for Board consideration. In keeping with the Board's broader focus, Board Committees will not direct

the implementation of District programs and projects, other than to receive information and provide comment.

Further, in accordance with Governance Process Policy-3, when requested by the Board, the Board's Committees may help the Board produce the link between the District and the public through information sharing to the communities they represent.

ATTACHMENTS:
Attachment 1: EWRC Working Groups January 2024

UNCLASSIFIED MANAGER:
Candice Kwok-Smith, 408-630-3193

FY 2023 EWRC Working Groups

PLEASE SIGN UP TODAY!

Working Group Number/Title	Member Name	Lead	Total Members
EWRC Oversight Manager: John Bourgeois, jbourgeois@valleywater.org, 1-408-630-2990			
1 INTEGRATED WATER RESOURCES MANAGEMENT:			
Valley Water Staff Liaison: Brian Mendenhall, bmendenhall@valleywater.org, 1-408-630-3093	Tess Byler Charles Ice Loren Lewis Elizabeth Sarmiento	Elizabeth	3
2 WATER SUPPLY:			
Valley Water Staff Liaison: Jing Wu, jwu@valleywater.org, 1-408-630-2330	Arthur M. Keller, Ph.D. Hon. Patrick S. Kwok Mike Michitaka Jim Piazza		4
3 NATURAL FLOOD PROTECTION:			
Valley Water Staff Liaison: Katie Muller, kmuller@valleywater.org, 1-408-630-2934	Arthur M. Keller, Ph.D. Mike Michitaka Charles Taylor		3
4 ENVIRONMENTAL STEWARDSHIP:			
Valley Water Staff Liaison: John Bourgeois jbourgeois@valleywater.org, 1-408-630-2990	Swanee Edwards Bob Levy Jim Piazza	Bob	3
5 CLIMATE CHANGE:			
Valley Water Staff Liaison: Brian Mendenhall, bmendenhall@valleywater.org, 1-408-630-3093	Bob Levy Elizabeth Sarmiento Charles Taylor	Bob	3

FY 2023 EWRC Working Groups

PLEASE SIGN UP TODAY!

Working Group Number/Title	Member Name	Lead	Total Members
Lead Member			

SPECIAL NOTES:

See 2021 EWRC Working Group Restructure Guidelines.

Members should limit the number of working groups they participate in because of possible Brown Act Violations (2-3 groups only).

Please Note: You will be sharing your phone number and email address with the other members when signing up for a working group.

When planning meetings, the Group Chair (Lead) should contact Glenna via email (gbrambill@valleywater.org) and John Bourgeois (jbourgeois@valleywater.org) with meeting date/time and location and how many members are expected to attend.