Attachment 2: Draft Priority Actions for Lower Peninsula and West Valley Watersheds

Flood Risk Reduction Actions

Action ID	Watershed	Title	Brief Description	Activity Type
FRR-1	LP	Stevens Creek Hydrology Update Study	Update flood hydrology and hydraulic models to improve flood risk estimates and support future watershed planning.	Assessment / Study
FRR-2	LP	Searsville Watershed Restoration Project	Partner with Stanford to restore a free-flowing creek system, improve floodplain function, and reconnect natural sediment transport processes.	Partnership
FRR-3	LP	San Francisquito Creek Flood Protection (Reach 2)	Support flood protection improvements and bridge upgrades to reduce flood risk along lower San Francisquito Creek.	Partnership
FRR-4	LP	Stevens Creek Dam Seismic Stability Assessment	Evaluate dam performance under earthquake and extreme flood conditions and identify potential improvement options.	Assessment / Study
FRR-5	LP	Palo Alto Tide Gate Rehabilitation	Rehabilitate aging tide gates that help protect nearby communities, infrastructure, and creek systems from coastal flooding.	Project
FRR-6	LP	Stevens Creek Flood Protection Project	Develop flood protection improvements in high-risk reaches of Stevens Creek to reduce flood risk to nearby properties and facilities.	Project
FRR-1	WV	West Valley Watershed Hydraulic Analysis	Refine watershed hydraulic models and flood risk assessments to support future planning and project development.	Assessment / Study
FRR-2	WV	Saratoga Creek Flood Protection Project	Evaluate and develop flood risk reduction improvements along a reach of Saratoga Creek near Stevens Creek Boulevard.	Project
FRR-3	WV	San Tomas Aquino Creek Watershed Sediment Assessment	Assess sediment movement, erosion areas, and future watershed conditions to support resilient sediment management strategies.	Assessment / Study
FRR-4	WV	Sunnyvale West Channel Enhancement Project	Improve flood protection along the West Channel through infrastructure upgrades to reduce flood risk near the Sunnyvale Water Pollution Control Plant, surrounding businesses, and transportation corridors. The project will be developed in coordination with the City of Sunnyvale.	Project
FRR-5	WV	Sunnyvale East Channel Enhancement Project	Upgrade bridges, levees, floodwalls, and other flood management infrastructure along the East Channel to improve system performance and reduce flood risk in the Moffett Park and Sunnyvale area.	Project

Natural Ecosystem Actions

Action ID	Watershed	Title	Brief Description	Activity Type
ECO-1	LP	Improve Spawning & Rearing Habitat for Steelhead	Add gravel, large wood, pools, and other habitat features to improve conditions for native fish in Stevens Creek.	Project
ECO-2	LP	SF35 Gage Fish Passage Improvement	Improve fish passage conditions at the Stevens Creek SF35 gaging station.	Project
ECO-3	LP	Fremont Fish Ladder Improvement	Upgrade fish ladder infrastructure to improve fish movement and habitat connectivity on Stevens Creek.	Project
ECO-4	LP	Hetch Hetchy Drop Structure Fish Passage	Support the improvement of fish passage at the SFPUC-owned drop structure on Stevens Creek.	Partnership
ECO-5	LP	Landels Park Fish Passage Improvement	Support the improvement of fish passage at two drop structures near Landels Park to support steelhead migration on Stevens Creek.	Partnership
ECO-6	LP	Vernon Avenue Fish Passage Improvement	Improve passage conditions for juvenile and adult steelhead near Vernon Avenue on Stevens Creek.	Project
ECO-7	LP	El Camino Real Fish Passage Improvement	Support the improvement of fish passage near El Camino Real and adjacent storm drain infrastructure on Stevens Creek.	Partnership
ECO-8	LP	Gaging Weir 44 Fish Passage Improvement	Support the improvement of fish passage at Weir 44 on Stevens Creek while maintaining stream monitoring capabilities.	Partnership
ECO-9	LP	Stevens Reservoir Trap-and-Truck Study	Evaluate the feasibility of transporting steelhead around Stevens Creek Reservoir to improve access to habitat.	Assessment / Study
ECO-10	LP	Stevens Creek Multiport Outlet Study	Evaluate reservoir outlet modifications that could improve downstream water temperatures and habitat conditions.	Assessment / Study
ECO-11	LP	Moffett Fish Passage Improvement	Improve the existing Moffet fish ladder for performance and habitat connectivity on Stevens Creek.	Project
ECO-12	LP	Evelyn Avenue Fish Passage Improvement	Restore stream habitat and improve fish passage opportunities near Evelyn Avenue.	Project
ECO-13	LP	Highway 101 Fish Passage Improvement	Support the improvement of fish passage barriers at the CalTrans-owned Highway 101 crossing on Stevens Creek.	Partnership
ECO-14	LP	Permanente Creek Diversion Study	Assess opportunities to improve fish passage along the Permanente Creek Diversion.	Assessment / Study

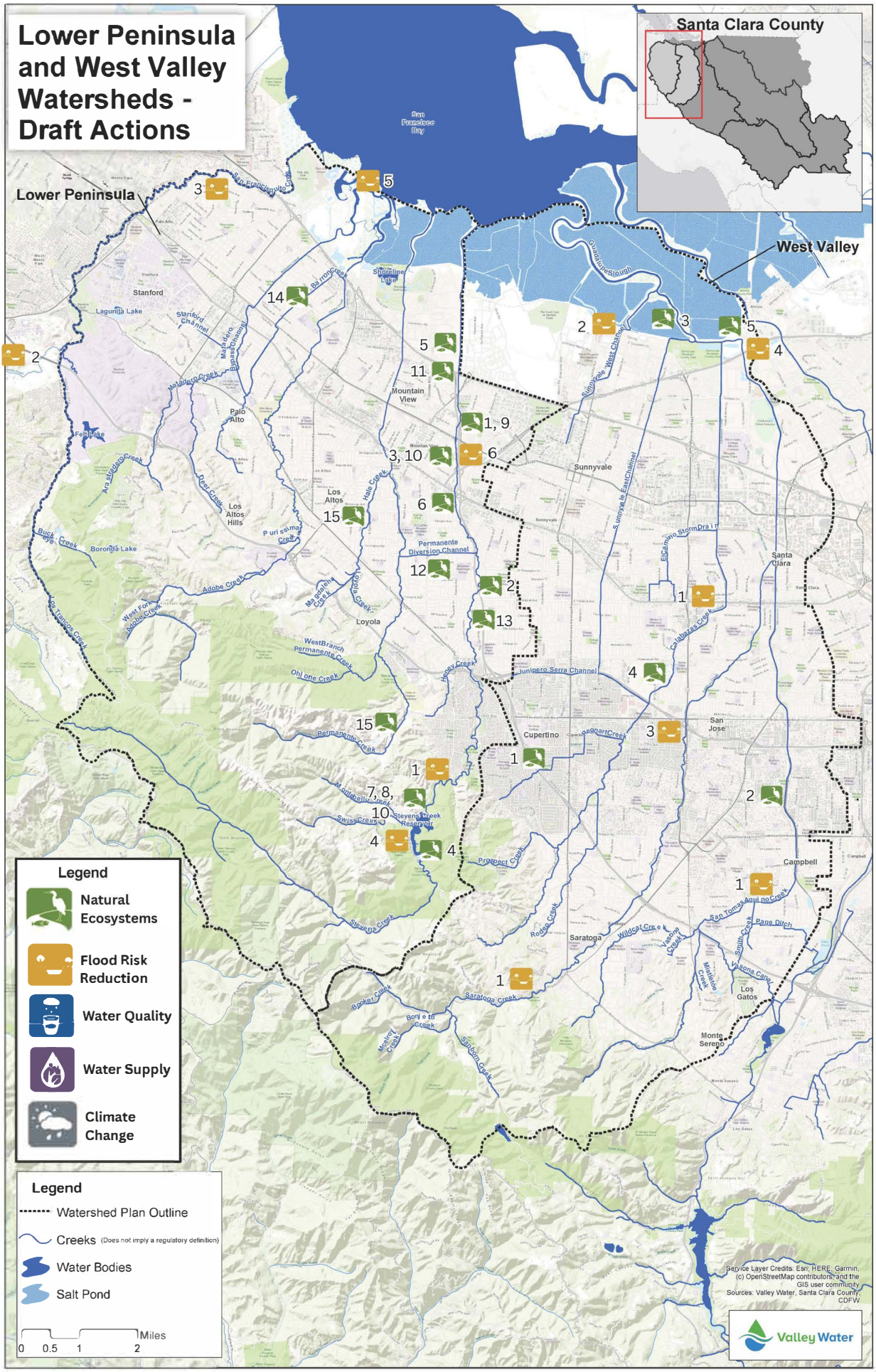
ECO-15	LP	Stevens Creek Channel Stabilization	Stabilize eroding creek reaches while enhancing habitat and channel function.	Project
ECO-16	LP	Barron Creek Channel Improvements	Improve aging channel infrastructure while enhancing ecological conditions.	Project
ECO-17	LP	Permanente & Hale Creek Channel Improvements	Improve aging channel infrastructure while enhancing ecological conditions.	Project
ECO-1	WV	Regnart Creek Channel Stabilization	Address channel erosion and instability along Regnart Creek through targeted improvements that reduce maintenance challenges while enhancing ecological function and watershed resilience.	Project
ECO-2	WV	San Tomas Aquino Creek Channel Improvements	Evaluate erosion, sediment, maintenance challenges, and habitat conditions along San Tomas Aquino Creek to identify long-term, sustainable solutions that improve watershed resilience and ecological function.	Project
ECO-3	WV	Pond A4 Resilient Habitat Restoration	Restore habitat within Pond A4 using nature-based approaches that improve ecological conditions, support wildlife, and enhance long-term resilience to climate change and sea level rise.	Project
ECO-4	WV	Calabazas Creek Channel Improvements	Evaluate opportunities to improve channel stability, flood risk management, and long-term maintenance effectiveness along lower Calabazas Creek. A study will first identify sustainable and cost-effective solutions to address ongoing sediment, vegetation, erosion, and infrastructure challenges.	Project
ECO-5	WV	Calabazas and San Tomas Aquino Creek-Marsh Connection	Reconnect Calabazas Creek and San Tomas Aquino Creek to adjacent tidal marsh habitats to improve ecological connectivity, support native wildlife, and enhance long-term ecosystem resilience.	Project
ECO-18 ECO-6	LP & WV	Modified Channel Ecological Enhancement Planning	Identify and prioritize opportunities to enhance habitat and ecological function within modified creek channels. Potential projects will be evaluated based on ecological benefits, feasibility, and their ability to maintain flood protection while providing additional community and environmental benefits where appropriate.	Assessment / Study

Climate Change Actions

Action ID	Watershed	Title	Brief Description	Activity Type
CC-1	LP & WV	Greenhouse Gas Reduction Plan Update	Implement Valley Water's Greenhouse Gas Reduction Plan to support progress toward net-zero emissions goals and improve climate resilience.	Plan
CC-2	LP & WV	Carbon Budget Tracking Program	Develop a carbon budget tracking tool and procedures to help monitor greenhouse gas emissions and track progress toward Valley Water's reduction targets.	Program

Water Quality Actions

Action ID	Watershed	Title	Brief Description	Activity Type
WQ-1	LP & WV	Partner with Local Municipalities to implement Stormwater Resource Plan	Valley Water plans to partner with municipalities throughout Santa Clara County to update the existing Santa Clara Basin Stormwater Resource Plan and identify projects that improve stormwater management and enhance the water quality of local creeks and waterways.	Partnership
WQ-2	LP & WV	Support and Advance Sea Level Rise Groundwater Studies	Support and expand studies evaluating the effects of sea level rise and saltwater intrusion on groundwater conditions, to further identify, prioritize, and develop adaptation projects and management strategies that improve long-term watershed resilience.	Partnership


Lower Peninsula and West Valley Watersheds - Draft Actions
Santa Clara County
Lower Peninsula
West Valley
San Francisco Bay
Guadalupe Slough
Stanford
Palo Alto
Mountain View
Sunnyvale
Los Altos
Los Altos Hills
Santa Clara
Cupertino
San Jose
Campbell
Saratoga
Los Gatos
Monte Sereno
Loyola
Lagunita Lake
Fern Lake
Boronda Lake
Shoreline Lake
Steven's Creek Reservoir
Permanente Diversion Channel
Junipero Serra Channel
Stanford Channel
Sunnyvale West Channel
Sunnyvale East Channel
El Camino Storm Drain
Permanente Creek
West Branch Permanente Creek
Adobe Creek
Hale Creek
Prospect Creek
Saratoga Creek
Calabazas Creek
Legend
Natural Ecosystems
Flood Risk Reduction
Water Quality
Water Supply
Climate Change
Legend
Watershed Plan Outline
Creeks (Does not imply a regulatory definition)
Water Bodies
Salt Pond
Miles
0 0.5 1 2
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Valley Water, Santa Clara County, CDFW
Valley Water

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