Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
		Ecological Resources Actions (E	CO) - Short Ter	rm Actions			
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. Any actions should be coordinated with WS-03: Guadalupe Dam Seismic Retrofit.	Project	Resource Conservation Districts, CDFW, NMFS, non-profit organizations	Watersheds	0-10	\$\$\$
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	Resource Conservation Districts, CDFW, NMFS, non-profit organizations	Environmental Mitigation and Monitoring Unit	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	Resource Conservation Districts, CDFW, NMFS, non-profit organizations	Environmental Mitigation and Monitoring Unit	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.	Project	Resource Conservation Districts, CDFW, NMFS, non-profit organizations	Watersheds	0-10	\$\$\$

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Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
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	0-10	\$\$\$
ECO-02b	Design and construct Calero Creek sites from the Second Phase Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement Project.	The Second Phase Study of Santa Clara County Steelhead Streams to Identify Priority Locations for Gravel Augmentation and Large Woody Debris Placement Project (AECOM, 2024) identified 6 Calero Creek sites as feasible and appropriate location to add gravel and large woody debris to increase instream shelter and complexity. Design at these sites includes gravel augmentation through injection piles, gravel bars, and creation of new riffles. Other recommendations include placement of rootwad logs, accelerated riparian recruitment to fell trees, and creation of new permanent access paths. Project still requires further design and construction.	Project	CDFW, NMFS, Water Board, USFWS	Watersheds	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. Almaden Dam provides an important impoundment of mercury laden sediment, preventing contamination downstream and adding complexity to any considered fish passage improvements. A feasibility study that fully considers all benefits 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 for WS-01: Complete Almaden Dam Improvements. 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	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. A pre- planning reconnaissance study should be done to fully understand the issue and should be conducted in conjunction with WS-11: Construct Alamitos Dam Replacement and Automation. This action would ideally be done before or concurrently with Alamitos Creek restoration through Almaden Lake (ECO-17).	Assessment/ Study	NMFS, CDFW	Office of Integrated Water Management (both Water Utility and Watersheds)	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.	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. Three such priority barriers that are not owned by Valley Water and would require coordination include the Pheasant Creek culvert, an old dam on Guadalupe Creek, and a drop structure at the Bertram Road bridge on Alamitos Creek. 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. Valley Water's planned Fish Passage Study on Guadalupe, Alamitos, and Calero Creeks is expected to be completed by the end of June 2026, and may identify additional impediments to be addressed.	Project	NMFS, CDFW, Valley Habitat Agency, Resource Conservation Districts, San José Water Company, native tribes, non-profit organizations	Watersheds	0-10	\$\$\$

Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
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, Santa Clara County Parks	Environmental Mitigation and Monitoring Unit	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	Midpen, Caltrans, various other stakeholders	Watersheds (Environmental Mitigation and Monitoring Unit)	0-10	\$\$\$
ECO-08	Develop program to incorporate restoration of areas impacted by unsheltered 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	City of San José, City of Santa Clara, Town of Los Gatos, City of Campbell, Town of Monte Sereno, Santa Clara County, non- profit organizations	Watersheds Operations and Maintenance	0-10	\$
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	Resource Conservation Districts, CAL FIRE, municipal fire districts, Water Board, CDFW, non-profit organizations	Watersheds	0-10	\$
ECO-10	Prepare a plan to expand and connect riparian corridors around channels, particularly where they are missing or only very narrow, and identify strategies and 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 builds from existing information resources, and could utilize primarily desk-top analysis to identify where wider riparian corridors, and what vegetation communities, could be supported, undeveloped areas that have the best potential for supporting conservation, and restoration that provides multiple benefits. This action includes planning, design, and implementation.	Project	Valley Habitat Agency, Open Space Authority, County Parks, Resource Conservation Districts, native tribes, non-profit organizations	Watersheds, Environmental Mitigation and Monitoring Unit, Vegetation Field Operations, Community Projects Review Unit, Land Management, and/or Stream Maintenance Program	0-10	\$\$\$

Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
ECO-11	Identify 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.	Assessment/ Study	Valley Habitat Agency, Open Space Authority, MidPen, County Parks, San José Water Company	Watersheds	0-10	\$\$\$
ECO-12	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.	Project	Resource Conservation Districts, non-profit organizations	Watersheds (FAHCE)	0-10	\$\$
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. Other actions at Alamitos Drop structure include EC0-04 and WS-11.	Project	Resource Conservation Districts, non-profit organizations	Watersheds (FAHCE, Stream Maintenance Program)	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	US Army Corps of Engineers, NMFS	Watersheds Design and Construction	0-10	\$\$
ECO-12c	Design and construct Guadalupe River project 9-2 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 #9-2 near W San Carlos St. as a site that could benefit from adding large woody debris, however access to the site is challenging.	Project	Resrouce Conservation Districts, non-profit organizations	Watersheds (FAHCE, Stream Maintenance Program)	0-10	\$\$
ECO-13	As habitat enhancements are implemented, adapt FAHCE monitoring as needed in coordination with FAHCE Adaptive Management Team.	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. Related actions include WQ-04: Create or expand existing water quality monitoring program.	Program	CDFW, NMFS, Water Board, USFWS	Watersheds (FAHCE)	0-10	\$\$

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Numbe	r Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
ECO-15	Explore partnerships and feasibility for habitat enhancement on Los Gatos Creek downstream of Lexington Reservoir.	The extent of benefits and feasibility of options for fish habitat enhancement between Lexington Reservoir and the Camden drop structure 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 reinitiate and continue initial discussions with partners, and to assess the extent of habitat benefit relative to effort and costs.	Assessment/ Study	Town of Los Gatos, County Parks	Watersheds (FAHCE)	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	County Parks, Water Board	Watersheds (FAHCE, Environmental Mitigation and Monitoring Unit, and/or Stream Maintenance Program)	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 José, 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 José, SPUR, SJ Airport (County Roads and Airports)	Watersheds (FAHCE, Environmental Mitigation and Monitoring Unit, and/or Stream Maintenance Program)	0-10	\$
ECO-19	Identify strategies and priorities to enhance the ecological conditions of modified channels.	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, Environmental Mitigation and Monitoring Unit, Stream Maintenance Program	0-10	\$\$
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, Environmental Mitigation and Monitoring Unit, Stream Maintenance Program, Design & Construction	0-10	\$\$
ECO-21	Remove and re-treat invasive plants that decrease ecological condition in coordination with the Integrated Invasive Plant Management Program.	Invasive trees, shrubs, and understory plants can degrade ecological condition and should be controlled as feasible and reasonable. Such efforts should be coordinated with Valley Water's new Integrated Invasive Plant Management Program (IIPMP) and can be informed by One Water maps to identify priority locations where invasive trees and/or shrubs dominate the ecosystem. Removal efforts should be prioritized where invasive vegetation increases flood risk, such as many Arundo donax stands and weeping willows along the Lower Guadalupe River.	Program	MidPen, City of San José, County Parks	Environmental Mitigation and Monitoring Unit, Vegetation Field Operations	0-10	\$\$

Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
ECO-22	Improve suitable spawning and rearing habitat for steelhead trout and salmon on Los Gatos Creek from Camden Avenue to its confluences with Guadalupe River in coordination with the FAHCE Adaptive Management Team.	Los Gatos Creek below Camden Avenue supports various life stages of steelhead and salmon. Enhancing habitat in this reach 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.	Project	Resource Conservation Districts, CDFW, NMFS, non-profit organizations	Watersheds	0-10	\$\$\$
ECO-22a	Design and construct Los Gatos 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 Los Gatos Creek project #1-1 near the Camden Drop Structure as feasible and appropriate, but it still requires design and construction.	Project	Resource Conservation Districts, non-profit organizations	Watersheds (FAHCE, Stream Maintenance Program)	0-10	\$\$
ECO-22b	Partner to support Los Gatos Creek Streambed Restoration Project.	South Bay Clean Creeks Coalition is planning and securing permission and funding for this gravel augmentation and enhancement project between Campbell Avenue and Highway 17. The project is consistent with FAHCE objectives to enhance habitat downstream of the Camden drop structure.	Partnership	South Bay Clean Creeks Coalition	Watersheds (FAHCE, Stream Maintenance Program)	0-10	\$\$
ECO-23	Partner to protect and enhance unique and sensitive natural communities and species.	The Guadalupe River watershed still supports unique and sensitive natural communities such as alkali meadows, seasonal wetlands, sycamore alluvial woodland, and serpentine grassland. Although many occurrences of these communities are already protected, enhancement is a continual need to ensure the species and functions of these communities persist. This action would continue funding via Safe Clean Water Priority D2 or other programs for revitalization of sensitive species and habitats, such as grassland revitalization for bat species at Sierra Azul Open Space Preserve and restoration of serpentine grassland at St. Joseph's Hill.	Partnership	County Parks, Open Space Districts, Valley Habitat Agency	Watershed (Safe Clean Water Project D2, D7)	0-10	\$\$
		Flood Risk Reduction (FRR) -	Short Term Act	ions			
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 - contains rodent damage that could potentially be addressed by O&M and/or WARP. Inspection records show 40% of reach with rodent holes.	Assessment/Study	N/A	Asset Management, Operations & Maintenance, WARP	0-10	\$\$

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Nur	ber Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
FRR-(Conduct Canoas Creek flood 4 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-Year): 244 Acres; 422 parcels	Assessment/ Study	City of San José	Design and Construction Unit 6	0-10	\$\$\$
FRR-C	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 exists due to rodents. Hwy 280 to Bascom Ave: Grading work is needed along the maintenance road. In stream vegetation and herbaceous veg in channel and on both banks will also need to be evaluated for potential removal. Guadalupe River Confluence to Vasona Dam Hwy 280 to the confluences: Excessive vegetation growth is a main concern in the downstream end near Guadalupe confluence. Managing rodent damage is a bigger concern in the upstream end - Camden ponds to Lark Ave. Historically, substantial amount of vegetation (invasive plants) has been removed near Dam multiple times (less than 6") in the last 10 years.	Assessment/ Study	City of San José, Town of Los Gatos	Asset Management	0-10	\$\$\$
FRR-(Complete 16 Guadalupe River Tasman Dr -l-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. Planning Phase Problem Definition, Opportunities & Constraints; Conceptual Alternative Analysis; Feasible Alternative Analysis; Staff Recommended Alternative & PSR Design & CEQA Phase 30% Design; 60% Design; 90% Design; 100% Design – Board Approval; CEQA – Draft to final EIR in Design Phase Permitting Initial Coordination with Regulatory Agencies during Planning; Prepare and Submit Applications in Design Phase; Negotiate and Obtain Permits towards end of design phase (before construction) Construction Phase RFP; Award Contract; 1st year construction; 2nd year construction, etc.	Project	City of San José, City of Santa Clara	Business Planning and Analysis, Design and Construction	0-10	\$\$\$\$
FRR-0	Complete Guadalupe River–Upper, 7 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 José 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: Permits (current to FY28), Design (current to FY30), Construction (current to F31). Planning Phase Problem Definition, Opportunities & Constraints; Conceptual Alternative Analysis; Feasible Alternative Analysis; Staff Recommended Alternative & PSR Design & CEQA Phase 30% Design; 60% Design; 90% Design; 100% Design – Board Approval; CEQA – Draft to final EIR in Design Phase Permitting Initial Coordination with Regulatory Agencies during Planning; Prepare and Submit Applications in Design Phase; Negotiate and Obtain Permits towards end of design phase (before construction) Construction Phase RFP; Award Contract; 1st year construction; 2nd year construction, etc.; As-Builts	Project	City of San José	Business Planning and Analysis Unit, Design and Construction Division	0-10	\$\$\$\$

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Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
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	Hydrology, Hydraulics and Geomorphology, Water Resources Planning and Policy	0-10	\$
FRR-10	Complete the South San Francisco Bay Shoreline Project, Phase I (EIA 11, San José / 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. Planning Phase Problem Definition, Opportunities & Constraints; Conceptual Alternative Analysis; Feasible Alternative Analysis; Staff Recommended Alternative & PSR Design & CEQA Phase 30% Design; 60% Design; 90% Design; 100% Design – Board Approval; CEQA – Draft to final EIR in Design Phase Permitting Initial Coordination with Regulatory Agencies during Planning; Prepare and Submit Applications in Design Phase; Negotiate and Obtain Permits towards end of design phase (before construction) Construction Phase RFP; Award Contract; 1st year construction; 2nd year construction, etc.; As-Builts	Project	California State Coastal Conservancy, US Army Corps of Engineers, City of San José	Watersheds, Design and Construction	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, providing opportunities for nature-based solutions to be incorporated. Santa Teresa Creek is a major tributary of Calero Creek. Flood Risk (25-Year): 72 acres, 91 parcels.	Project	N/A	Design and Construction Unit 6	0-10	\$\$\$
FRR-12	Complete WARP Guadalupe River (Blossom Hill Rd & Malone Road Erosion Repair).	This maintenance project is being proposed to repair the failed concrete slope and gabion basket embankments along Malone Road and under Blossom Hill Road respectively.	Project	City of San José	Watersheds Design and Construction, Watersheds Asset Rehabilitation Program (WARP)	0-10	\$\$\$

Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
		Water Quality (WQ) - Shor	t Term Actions				
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	Guadalupe Coyote Resource Conservation District	Watersheds S&P	0-10	\$
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. Related actions include ECO-13: Adapt FAHCE Monitoring.	Program	SCVURPPP	Environmental Planning Unit/ Water Quality	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	City of San José, City of Santa Clara, Town of Los Gatos, City of Campbell, Town of Monte Sereno, Santa Clara County, non- profit organizations	Unhoused Task Force, Community Projects Review Unit	0-10	\$\$\$\$
		Water Supply (WS) - Short	Term Actions				
WS-02	Complete Almaden-Calero Canal Repairs	Due to the deteriorating condition of the five-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	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	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	Program	N/A	Business Planning and Analysis Unit, Construction Services Unit	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	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	0-10	\$\$\$\$

Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
WS-11	Construct Alamitos Dam Replacement and Automation.	The Alamitos Dam is an existing wooden, flashboard dam that is typically installed and removed once a year to divert local water to nearby ponds for groundwater recharge. During rainy seasons, Valley Water cannot divert water to the recharge ponds due to flooding concerns caused by the flashboard dam, and therefore cannot utilize the annual recharge capacity of 8,100 acre-feet to replenish the groundwater basin. This project would replace the existing wooden flashboard dam with a diversion dam that is automated, allowing it to be lowered quickly ahead of large winter storms. This would increase operational flexibility and improve use of local water rights. This project should be conducted in conjunction with ECO-04 and ECO-12a, which would incorporate ecological enhancements to the dam and drop structure.	Project	N/A	Water Supply Planning and Conservation/ Water Supply Division, Raw Water	0-10	\$\$\$
		Climate Change (CC) - Mec	lium Term Acti	ons			
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	Bay Area Flood Protection Agencies, Resource Agencies, US Army Corps of Engineers	Hydrology, Hydraulics and Geomorphology, Design and Construction	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 a 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, Hydrology, Hydraulics and Geomorphology, Raw Water, Water Utility, Legal	11-20	\$\$\$
		Ecological Resources (ECO) - N	Aedium Term A	Actions			
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 in the watershed, 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)	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, reduce water temperature, and more. Valley Water has prepared 60% designs and an Environmental Impact Report, 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	Valley Habitat Agency, CDFW, NMFS, Water Board, City of San Jose	Watersheds (FAHCE, Environmental Mitigation and Monitoring Unit, and/or Stream Maintenance Program)	11-20	\$\$\$\$

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Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
		Flood Risk Reduction (FRR) - Medi	um Term Actions				
FRR-02	Conduct Alamitos Creek Planning Study.	Due to the many sources of flood risk in this area, a more holistic flood risk planning study is needed. 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. Alamitos Creek contains man-made levees from Almaden Lake up to McKean Road and is densely populated with residential properties. From McKean Road to Beltran Road, the floodplain is very rural and sparsely populated. The project would include the following tributaries: Golf Creek, Greystone Creek, and Randol Creek, and should consider ECO-17: Alamitos Creek Separation and Restoration Project. Flood Risk (25-Year): 171 acres 367 parcels.	Assessment/Study	City of San José	Design and Construction Unit 6	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 erosion and 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 Alternatives should incorporate Asset Management concerns, which include erosion issues from Kirk Rd to Camden and Union to Camino Del Cerro (45% of assets in moderate-high risk zone), and erosion, sediment and MGR (Grading Work) for the rest of the creek. Potential Alternatives should also consider removing one of the two maintenance roads to increase flood capacity as well as ecological habitat in the channel. This also has the potential to be used as stormwater mitigation. Flood Risk (25-Year): 231 Acres; 1,214 parcels.	Assessment/Study	City of San José	Design and Construction Unit 6	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	Santa Clara County Parks	Watersheds, Raw Water	11-20	\$\$
		Water Quality (WQ) - Medium	Term Actions				
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	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	11-20	\$\$\$\$

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Number	Watershed Actions	Description	Activity Type	Potential Partner Agencies	Involved Valley Water Department	Implementation Timeframe (years)	Valley Water Cost Estimate*
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	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	11-20	\$\$\$\$
		Water Supply (WS) - Medium	Term Actions				
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	11-20	\$\$\$\$\$
WS-12	Construct San José Purified Water Project.	In February 2024, Board adopted staff's recommendation to move forward with a San José Purified Water Project that would include a phased approach toward implementation of a large-scale direct potable reuse (DPR) facility in northern Santa Clara County. In alignment with recently adopted regulations for direct potable reuse, the Board approved the first phase of a San José DPR Project – Phase I – Demonstration Facility and a Phase II – Full-Scale Facility for inclusion in its Capital Improvement Program (CIP). The Phase I Demonstration Facility would ensure that the future large-scale facility would meet these new regulations and provide reliable drought-resistant water supplies for the County.	Project	City of San José, Santa Clara County	Business Planning and Analysis Unit, Recycled Water Unit/Water Supply Division, Raw Water, Groundwater units	11-20	\$\$\$\$\$
		Water Supply (WS) - Long Te	erm Actions				
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	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	21-50+	\$\$\$\$\$
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	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 José Water Company's Montevina Water Treatment Plant.	Project	N/A	Water Supply Planning and Conservation/ Water Supply Division, Raw Water	21-50+	\$\$\$\$