Appendix A. BMPs and VHP Conditions

Best Management Practices and Santa Clara Valley Habitat Plan (VHP) Incorporated into the Project.

Best Management Practices		
Number	**Title**	**Description**
BMP-AQ-1	Use Basic Dust Control Measures for all Construction Sites	Implement BAAQMD Basic Control Measures for construction emissions of PM10 at all construction sites. Current measures stipulated by BAAQMD CEQA Guidelines include the following: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points. 7. All equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 8. Post a publicly visible sign with the telephone number and person to contact at Valley Water regarding dust complains. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
BMP-AQ-2	Use Enhanced Dust Control Measures for Sites Greater than Four Acres in Size	Implement Bay Area Air Quality Management District (BAAQMD) Enhanced Dust Control Measures. Current measures stipulated by the BAAQMD CEQA Guidelines include the following (BAAQMD 1999): 1. All BAAQMD "Basic" control measures. 2. Inactive areas (previously graded areas inactive for ten days or more) shall be sprayed with soil stabilizer or seeded. 3. Exposed stockpiles (dirt, sand, etc.) shall be watered twice daily, enclosed, covered, or sprayed with soil stabilizers.

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		4. Traffic speeds on unpaved roads shall be limited to 15 mph. 5. Sandbags or other bank protections shall be installed to prevent silt runoff to roadways. 6. Vegetation in disturbed areas shall be replanted as soon as horticulturally appropriate. For example, plant material may not be ready as soon as the job is done (e.g. willow cuttings have to be collected during winter dormancy).
BMP-AQ-3	Incorporate Additional Dust Control Measures, as Appropriate	Implement appropriate BAAQMD Optional Control Measures for construction emissions of PM10 at all construction sites. BAAQMD Optional Control Measures are strongly encouraged at construction sites that are large in area, located near sensitive receptors, or which for any other reason may warrant additional emissions reductions. Current measures stipulated by the BAAQMD CEQA Guidelines include the following (BAAQMD 1999): 1. Install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the site. 2. Install wind breaks or plant trees/vegetation wind breaks at windward side(s) of construction areas. 3. Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. 4. Limit the area subject to excavation, grading, and other construction activity at any one time. 5. Tailgates of trucks shall be sealed. 6. Trucks shall be brushed down before leaving the site.
BMP-AQ-4	Avoid Stockpiling Potentially Odorous Materials	Some sites will have materials that are rich in organic matter decaying in an anaerobic condition, which generates assorted malodorous gases, such as reduced sulfur compounds. These materials will be handled in a manner that avoids impacting sensitive receptors. 1. Avoid stockpiling potentially odorous materials within 1,000 feet of residential areas or other odor sensitive land uses. 2. Where appropriate, odorous stockpiles will be disposed of at an appropriate landfill.
BMP-BI-2	Avoid and Minimize Impacts on Native Aquatic Vertebrates	1. Native aquatic vertebrates (fish, amphibians and reptiles) are important components of stream ecosystems. Native aquatic vertebrates may or may not be able to rapidly re-colonize a stream reach if the population is eliminated from that stream reach. If native aquatic vertebrates are present when cofferdams, water bypass structures, and silt barriers are to be installed, an evaluation of the stream and the native aquatic vertebrates will be conducted by a qualified biologist. The qualified biologist will consider: a. Which native aquatic species are present; b. The ability of the species to naturally re-colonize the stream reach; c. The life stages of the native aquatic vertebrates present; d. The flow, depth, topography, substrate, chemistry and temperature of the stream reach; e. The feasibility of relocating the aquatic species present; and f. The likelihood the stream reach will naturally dry up during the work season.

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		2. Based on consideration of these factors the qualified biologist may make a decision to relocate native aquatic vertebrates. The qualified biologist will document in writing the reasons to relocate native aquatic species, or not to relocate native aquatic species, prior to installation of cofferdams, water bypass structures or silt barriers. 3. If the decision is made to relocate the native aquatic species, then the operation will be based on Valley Water's Fish Relocation Guidelines.
BMP-BI-4	Minimize Waterway Access Impacts	1. Existing access ramps and roads to waterways will be used where possible. If temporary access points are necessary, they will be constructed in a manner that minimizes effects: a. Temporary Project-access points will be created as close to the work area as possible to minimize running equipment in waterways and will be constructed so as to minimize adverse effects. b. Any temporary fill used for access will be removed upon completion of the Project. Site topography and geometry will be restored to pre-Project conditions to the extent possible. c. Off-road vehicular access routes will be surveyed and flagged by a qualified biologist prior to use to avoid sensitive plants, animal burrows, wetlands and vernal pools, or other sensitive habitat. Whenever possible, routes should be not more than 15 feet wide. Personnel and vehicles are required to stay within marked access areas.
BMP-BI-5	Remove Temporary Fills as Appropriate	Temporary fills, such as for diversion structures or cofferdams, will be removed upon finishing the work. The creek channels and banks will be re-contoured to match pre-construction conditions to the extent possible.
BMP-BI-8	Avoid Impacts to Nesting Migratory Birds	1. Nesting birds are protected by state and federal laws. Valley Water shall protect nesting birds and their nests from abandonment, loss, damage, or destruction. Nesting bird surveys shall be performed by a qualified individual prior to any activity that could result in the abandonment, loss, damage, or destruction of birds, bird nests, or nesting migratory birds. Inactive bird nests may be removed, with the exception of raptor nests. 2. For activities initiated during the avian breeding season (1 February through 31 August in the Project vicinity), pre-construction surveys for nesting birds will be conducted by a qualified biologist no more than one week prior to the initiation of construction activities in any given area. Because construction may be phased, surveys will be conducted prior to the commencement of each phase of construction. The survey will cover the portions of the Project site where construction activities will occur as well as a 1-mile buffer (or 2 miles from blasting) for nesting eagles (if eagles may nest in the vicinity), a 250-foot buffer for other raptors, and a 50-foot buffer for non-raptors. During each survey, the biologist will inspect all trees and other potential nesting habitats (e.g., shrubs, grasslands, wetlands, and buildings) in and immediately adjacent to the effect areas for nests. If a lapse in Project- related work of one week or longer occurs, another focused survey will be conducted before Project work can be reinitiated during the breeding season.

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		3. If an active nest is found, a qualified biologist will determine the extent of a disturbance-free buffer zone to be established around the nest to ensure that it is not disturbed during Project implementation. The buffer distance is measured as the straight-line distance between an active nest and the activity, taking both horizontal and vertical distance into account. No new Project-related activities (i.e., activities that were not ongoing when the nest was established) will be performed within the buffer until the young have fledged or the nest has been determined to be inactive by a qualified ornithologist. Standard buffers are typically 50 feet for non-raptors and 250 feet for raptors other than eagles (for which the buffer may be up to 1 mile, or 2 miles for blasting). A qualified biologist may determine that a reduced buffer is acceptable, taking into account dense vegetation, topography, or structures that will block Project activities from view; the life history and behavior of the bird species in question; and the nature of the proposed activity. If a reduced buffer is implemented, the biologist will monitor bird behavior in relation to work activities. At a minimum, the biologist will monitor the baseline behavior of the birds for at least 30 minutes prior to the commencement of the activity (to determine the birds' behavior in the absence of the activity) and for at least one hour immediately following the initiation of the activity, when response by the nesting birds to the novel activity is expected to be greatest. If the birds exhibit abnormal nesting behavior which may cause reproductive failure (e.g., nest abandonment and loss of eggs and/or young), such as agitated/defensive flights and vocalizations directed towards Project personnel, birds standing up from a brooding position, birds flushing from the active nest, or cessation of provisioning of young with food, the disturbance-free buffer will immediately be adjusted out to the standard buffer distance until the birds have resumed their normal behavior (e.g., incubation or feeding of young). After 2 hours with all work confined to the area outside the standard buffer, work will again be attempted in the area within the reduced buffer, and the process will be repeated to determine if the birds have habituated to the activity. If the process is repeated three times without the birds indicating that they are habituating to the activity, then the standard buffer will be maintained until the next day, when the process above will again be attempted. If the birds do not indicate that they are habituated to Project activities during the initial 2 days of attempting work within a reduced buffer, the standard buffer will be implemented. Project activities within the reduced buffers will not resume until Valley Water has consulted with CDFW and both the qualified biologist and CDFW confirm that the birds' behavior has normalized, or until the nest is no longer active.
BMP-BI-9	Use Exclusion Devices to Prevent Migratory Bird Nesting	Nesting exclusion devices may be installed to prevent potential establishment or occurrence of nests in areas where construction activities will occur. All nesting exclusion devices will be maintained throughout the nesting season or until completion of work in an area makes the devices unnecessary. All exclusion devices will be removed and disposed of when work in the area is complete.
BMP-BI-10	Minimize Impacts to Vegetation Whenever Clearing (or Trimming) Is Necessary	1. Vegetation to be trimmed or cleared will be evaluated by a qualified vegetation specialist or qualified biologist prior to effects and the qualified vegetation specialist or qualified biologist recommendations will be followed.

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		2. Survey cross-sections will be moved, within acceptable tolerances, to avoid cutting dense riparian vegetation and minimize cutting of woody vegetation, taking advantage of natural breaks in foliage. If the cross-section cannot be moved within the established acceptable tolerances to avoid effects to dense riparian or woody vegetation, the cross-section will be abandoned. 3. Cutting vegetation will be limited to the minimum length, width, and height necessary for safely accessing survey locations, and completing the cross-section surveys. Tree pruning will conform to International Society of Arboriculture (ISA) pruning standards. No trees with a 6-inch or greater diameter at breast height will be removed; and, no branches greater than 4" diameter will be removed. 4. Woody vegetation (i.e. native trees and shrubs) which require pruning for equipment access, construction operations, etc., shall be pruned such that the health status of the vegetation is maintained, and no post-construction s accrue. Woody vegetation will be pruned consistent with all three of the following reference documents or their updates: a. 'Best Management Practices, Tree Pruning' 2008, International Society of Arboriculture; and b. ANSI A300 (Part 1) – 2008 PRUNING; and c. ANSI Z133.1, 2008, SAFEEY REQUIREMENTS. 5. Woody material (including live leaning trees, dead trees, tree trunks, large limbs, and stumps) will be retained onsite, unless it is threatening a structure or impedes access, in which case it must be moved to a less threatening position.
BMP-BI-11	Minimize Root Impacts to Woody Vegetation	1. Construction activities, including cut and fill, will be minimized to the extent practicable within the root zones of existing woody vegetation to remain post Project. In general, root extent can be estimated as 2-3 times canopy radius but vary depending on slope and soil conditions. To the extent practicable, construction setbacks will be calculated using all of the following: a. Tree DBH (diameter at breast height); and b. Age class and sensitivity to disturbance (species dependent) per Guidelines and Standards, Design Guide 1: Protection of Existing Riparian Vegetation (ISO document WQ71001) and Trees and Development, a Technical Guide to Preservation of Trees During Land Development, by Nelda Matheny and James Clark published by International Society of Arboriculture [ISA] 1998. 2. Additionally, mulching the root zone will be employed to provide root protection from unavoidable equipment traffic during construction, specifically: a. Use 6 inches minimum depth of wood chips; or, b. 4 inches minimum depth of ¾-inch (or greater) gravel, per Trees and Development, a Technical Guide to Preservation of Trees During Land Development, by Nelda Matheny and James Clark published by International Society of Arboriculture [ISA] 1998, p. 108. 3. Both root protection methods may remain in place after work if approved by a qualified biologist or vegetation specialist.

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BMP-BI-12	Avoid Special Status Plant Species and Special Status Natural Communities	1. Project areas will be pre-surveyed for special status plant species and sensitive natural communities, which have the potential to occur on Valley Water facilities. In order to avoid and/or minimize potential effects to special status plants and natural communities, the following actions will be taken: a. Surveys of the Project area for special status plant species and sensitive natural communities will be conducted by a qualified biologist prior to commencement of work; and, b. The qualified biologist will ensure avoidance of effects to special status plant species and special status natural communities by implementing one, or more, of the following, as appropriate, per the biologist's recommendation: - Flag the population or natural community areas to be protected; - Allow adequate buffers; and/or, - Time construction or other activities during dormant and/or non-critical life cycle periods.
BMP-BI-13	Plant Local Ecotypes of Native Plants and Choose Appropriate Erosion Control Seed Mixes	1. Whenever native species are prescribed for installation on Valley Water fee properties or easements, the following steps will be taken by a qualified biologist or vegetation specialist: a. Evaluate whether the plant species currently grows wild in Santa Clara County; and, b. If so, the qualified biologist or vegetation specialist will determine if any need to be local natives, i.e. grown from propagules collected in the same or adjacent watershed, and as close to the Project site as feasible. 2. Also, consult a qualified biologist or vegetation specialist to determine which seeding option is ecologically appropriate and effective, specifically: a. For areas that are disturbed, an erosion control seed mix may be used consistent with the SCVWD Guidelines and Standards for Land Use Near Streams, Design Guide 5, 'Temporary Erosion Control Options.' b. In areas with remnant native plants, the qualified biologist or vegetation specialist may choose an abiotic application instead, such as an erosion control blanket or seedless hydro-mulch and tackifier to facilitate passive revegetation of native species. c. Temporary earthen access roads may be seeded when site and horticultural conditions are suitable. d. If a gravel or wood mulch has been used to prevent soil compaction per BI-11, this material may be left in place [if ecologically appropriate] instead of seeding. 3. Seed selection shall be ecologically appropriate as determined by a qualified biologist, per Guidelines and Standards for Land Use Near Streams, Design Guide 2: Use of Local Native Species; and Supplemental Landscaping\Revegetation Guidelines (ISO document WQ71001).
BMP-BI-15	Restore Riffle/Pool Configuration of Channel Bottom	1. Valley Water shall re-grade the channel bottom at the end of the Project to as close to original conditions as possible.

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		2. In salmonid streams, restore pool and riffle configurations to emulate pre-Project instream conditions, taking into account channel morphological features (i.e. slope), which affects riffle/pool sequence.
BMP-BI-16	Avoid Animal Entry and Entrapment	1. All pipes, hoses, or similar structures less than 12 inches diameter will be closed or covered to prevent animal entry. All construction pipes, culverts, or similar structures, greater than 2-inches diameter, stored at a construction site overnight, will be inspected thoroughly for wildlife by a qualified biologist or properly trained construction personnel before the pipe is buried, capped, used, or moved. 2. If inspection indicates presence of sensitive or state- or federally-listed species inside stored materials or equipment, work on those materials will cease until a qualified biologist determines the appropriate course of action. 3. To prevent entrapment of animals, all excavations, steep-walled holes or trenches more than 6-inches deep will be secured against animal entry at the close of each day. Any of the following measures may be employed, depending on the size of the hole and method feasibility: a. Hole to be securely covered (no gaps) with plywood, or similar materials, at the close of each working day, or any time the opening will be left unattended for more than one hour; or b. In the absence of covers, the excavation will be provided with escape ramps constructed of earth or untreated wood, sloped no steeper than 2:1, and located no farther than 15 feet apart; or c. In situations where escape ramps are infeasible, the hole or trench will be surrounded by filter fabric fencing or a similar barrier with the bottom edge buried to prevent entry.
BMP-BI-17	Minimize Predator-Attraction Effects on Wildlife	Remove trash daily from the worksite to avoid attracting potential predators to the site.
BMP-HM-9	Clean Vehicles and Equipment	Vehicles will be washed only at the approved area in the corporation yard. No washing of vehicles will occur at job sites.
BMP-HM-10	Assure Proper Vehicle and Equipment Fueling	1. No fueling will be done in a waterway or immediate flood plain, unless equipment stationed in these locations is not readily relocated (i.e., pumps, generators). 2. For stationary equipment that must be fueled onsite, containment will be provided in such a manner that any accidental spill of fuel will not be able to enter the water or contaminate sediments that may come in contact with water. 3. Any equipment that is readily moved out of the waterway will not be fueled in the waterway or immediate flood plain. 4. All fueling done at the job site will provide containment to the degree that any spill will be unable to enter any waterway or damage riparian vegetation.

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BMP-HM-11	Assure Proper Vehicle and Equipment Maintenance	No equipment servicing will be done in a stream channel or immediate flood plain, unless equipment stationed in these locations cannot be readily relocated (i.e., pumps, generators). 1. Any equipment that can be readily moved out of the channel will not be serviced in the channel or immediate flood plain. 2. All servicing of equipment done at the job site will provide containment to the degree that any spill will be unable to enter any channel or damage stream vegetation. 3. If emergency repairs are required in the field, only those repairs necessary to move equipment to a more secure location will be done in a channel or flood plain. If emergency repairs are required, containment will be provided equivalent to that done for fueling or servicing.
BMP-HM-12	Assure Proper Hazardous Materials Management	Measures will be implemented to ensure that hazardous materials are properly handled, and the quality of water resources is protected by all reasonable means. 1. Prior to entering the work site, all field personnel will know how to respond when toxic materials are discovered. 2. The discharge of any hazardous or non-hazardous waste as defined in Division 2, Subdivision 1, Chapter 2 of the California Code of Regulations will be conducted in accordance with applicable State and federal regulations. 3. In the event of any hazardous material emergencies or spills, personnel will call the Chemical Emergencies/Spills Hotline at 1-800-510-5151.
BMP-HM-13	Prevent Spills	Valley Water will prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water into channels following these measures: 1. Valley Water field personnel will be appropriately trained in spill prevention, hazardous material control, and cleanup of accidental spills. 2. Equipment and materials for cleanup of spills will be available onsite and spills and leaks will be cleaned up immediately and disposed of according to applicable regulatory requirements. 3. Field personnel will ensure that hazardous materials are properly handled, and natural resources are protected by all reasonable means. 4. Spill prevention kits will always be in close proximity when using hazardous materials (e.g., at crew trucks and other logical locations). All field personnel will be advised of these locations. 5. Valley Water staff will routinely inspect the work site to verify that spill prevention and response measures are properly implemented and maintained. 6. Spill Response Measures: a. For small spills on impervious surfaces, absorbent materials will be used to remove the spill, rather than hosing it down with water. For small spills on pervious surfaces such as soil, the spill will be excavated and properly disposed rather than burying it. Absorbent materials will be collected and disposed of properly and promptly.

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		b. If a hazardous materials spill occurs that cannot be contained or cleaned up with the onsite materials, the onsite Valley Water field personnel will be responsible for immediately initiating an emergency response sequence by notifying the proper authorities (i.e., Valley Water Emergency Response (ER) Team and public fire and hazmat agencies) of the release; taking appropriate defensive steps from a safe distance to secure the site to minimize damage to people, environment, and property (PEP); and deferring all other response activities to public emergency response agencies and/or the Valley Water Emergency Response (ER) Team or Valley Water ER Contractor. Depending on the nature of the release, the Valley Water ER Team's actions will include: urgent (responding within 2 hours of notification) field response site reconnaissance, emergency sequence initiation, defensive containment, release control, incident command; or priority (non 2-hour) field response site reconnaissance and clean-up operations. c. If a "reportable" spill of petroleum products occurs, Valley Water's Stream Maintenance Implementation Program Manager will be notified, and action taken to contact the appropriate safety and cleanup crews. A reportable spill is defined as when: - a film or sheen on, or discoloration of, the water surface or adjoining bank/shoreline is observed; or - a sludge or emulsion is deposited beneath the surface of the water or adjoining banks/shorelines (40 Code of Federal Regulations 110); or when - another violation of water quality standards is observed. d. A written description of the reportable release must be submitted to the appropriate Regional Water Quality Control Board and the California Department of Toxic Substances Control (DTSC). This submittal must contain a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. e. If an appreciable spill has occurred, and results determine that Project activities have adversely affected surface water or groundwater quality, a detailed analysis will be performed to the specifications of DTSC to identify the likely cause of contamination. This analysis will include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, Valley Water or contractors will select and implement measures to control contamination, with a performance standard that surface and groundwater quality will be returned to baseline conditions. These measures will be subject to approval by Valley Water, DTSC, and the Regional Water Quality Control Board.
BMP-HM-14	Know the Spill Kit Location	1. Spill prevention kits appropriate to the hazard will always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). 2. Prior to entering the work site, all field personnel will know the location of spill kits on crew trucks and at other locations within the Project area.

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		3. All field personnel will be advised of these locations and trained in their appropriate use.
BMP-WQ-6	Stabilize Construction Entrances and Exits	Measures will be implemented to minimize soil from being tracked onto streets near work sites: 1. Methods used to prevent mud from being tracked out of work sites onto roadways include installing a layer of geotextile mat, followed by a 4-inch thick layer of 1 to 3-inch diameter gravel on unsurfaced access roads. 2. Access will be provided as close to the work area as possible, using existing ramps where available and planning work site access so as to minimize disturbance to the water body bed and banks, and the surrounding land uses.
BMP-WQ-21	Control Sediment/ Turbidity for Discharges Less than 50 NTU	To control sediment and turbidity in discharges from Project activities where the source is treated water, recycled water, raw water, or groundwater with a turbidity of less than 50 NTU: 1. Characterize the discharge appropriately (follow the Planned Discharge Activities Checklist to ensure the correct BMPs are used): a. Identify the source of water. b. Determine the volume of the water to be discharged. c. Determine if operations may cause the turbidity to be greater than 50 NTU, refer to the BMP Sediment/ Turbidity Control for Discharges Greater than 50 NTU (BMP-HYD-6). 2. Choose the option for discharging the water (in order of preference): a. Reuse water, either for dust suppression, irrigation, or construction compaction. b. Discharge to sanitary sewer system (requires approval from local sanitary district). c. Discharge to storm drain system or water body. 3. Use appropriate control measures when discharging water: a. Use sanitary sewer BMPs if discharging to the sanitary sewer. b. Visually monitor the turbidity if it is suspected to be above 50 NTU. c. Terminate the discharge or implement appropriate control measures if the turbidity exceeds 50 NTU (refer to BMP-HYD-6: Sediment/ Turbidity Control for Discharges Greater than 50 NTU). d. There are no additional control measures required if the source water is hydrant flushing, fire flow testing, a main line break or blow off, and the discharge volume is not greater than 50,000 gallons. 4. Inspection and Maintenance: a. Before discharging any water, inspect the discharge flow path for debris and erosion, and cleanup the flow path as needed. b. Monitor the discharge to make sure it is not interfering with the normal operation of the sanitary sewer, or flooding the storm drain system. c. When the discharge is complete, inspect the flow path and receiving water (if discharging

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		directly to a water body, if practicable) for evidence of erosion or deposited sediment. d. Sweep up sediment deposited in the flow path and dispose of appropriately. e. Complete the Planned Discharge Activities Checklist and submit it to Valley Water staff responsible for Water Utility Discharge Pollution Prevention Plan reporting.
BMP-WQ-22	Control Sediment/ Turbidity for Discharges Greater than 50 NTU	To control sediment and turbidity in discharges from Project activities where the source is treated water, recycled water, raw water, or groundwater with a turbidity of greater than 50 NTU: 1. Characterize the discharge appropriately (follow the Planned Discharge Activities Checklist to ensure the correct BMPs are used): a. Identify the source of water. b. Determine the volume of water to be discharged. c. Determine the turbidity of the discharge. 2. Choose the option for discharging the water (in order of preference): a. Reuse water, either for dust suppression, irrigation, or construction compaction. b. Discharge to sanitary sewer system (requires approval from local sanitary district). c. Discharge to storm drain system or water body (requires use of sediment/ turbidity control measures). 3. Select control measures appropriately. a. Consider the following criteria when selecting the appropriate control measure: - Suitability of area for discharge (vegetated surface, chlorine neutralization requirements). - Proximity to storm drains or receiving waters. - Length of time BMP is to be in place. - Ease of installation, operation and removal. b. Choose from the following control measures and refer to the individual fact sheets for guidance on implementation: - Discharges to Sanitary Sewer Systems (CM-A). - Flow Path – Vegetation Filtration (CM-B). - Flow Path – Check Filters (CM-C). - On-Line Filter System (CM-D). - Storm Drain Inlet Protection (CM-E). - Silt Fence Culvert Entrance Protection (CM-F). - Surface Protection – Armoring (CM-G). - Surface Protection – Flow Diversion (CM-H). 4. Inspection and Maintenance:

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		a. Before discharging any water, inspect the discharge flow path for debris and erosion, and cleanup the flow path as needed. b. Monitor the discharge to make sure it is not interfering with the normal operation of the sanitary sewer, or flooding the storm drain system. c. Monitor the discharge turbidity to evaluate the effectiveness of the control measure. d. When the discharge is complete, inspect the flow path and receiving water (if discharging directly to a water body, if practicable) for evidence of erosion or deposited sediment. e. Sweep up sediment deposited in the flow path and dispose of appropriately. f. Complete the Planned Discharge Activities Checklist and submit it to Valley Water staff responsible for Water Utility Discharge Pollution Prevention Plan reporting.
BMP-WQ-23	Evaluate Use of Discharge Flow Path – Vegetation Filtration	To remove sediments and prevent sediments from entering local creeks and the bay: 1. Confirm applicability: a. Use this control measure where an existing vegetated area can be used to filter the sediments from the discharged water. b. Make sure the vegetated area is of sufficient density to filter the sediments and of such strength that it will not be uprooted by the discharged water. 2. Design Considerations: a. Ensure that the area to receive the discharge has tight, dense, well- established vegetation similar to a grassy area. b. Control the energy of the discharge or dissipate to prevent erosion of the soil within the vegetated area, and to prevent the destruction and uprooting of the vegetation. c. Adjust the discharge to avoid flooding and excessive runoff. d. Remove debris from the flow path. 3. Construction Specifications: a. Ensure that at least 50 feet of grassy ground is available between the point of discharge and the location where the water drains into the receiving storm drain system or the creek. 4. Inspection and Maintenance: a. Ensure that there is no breakthrough of sediments. b. Ensure that there is no erosion of grassy areas.
BMP-WQ-27	Evaluate Use of Discharge Surface Protection – Armoring	To protect exposed soil and vegetated surfaces from erosion during discharges by placing protective armor (e.g., plastic sheeting, cloth fabric, gravel bedding) over the erodible surface: 1. Select and install armoring materials properly: a. Choose a material whose strength is proportionate to the velocities and materials in the discharged water (e.g. sediment).

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		b. Clear the area to be protected of rocks and debris which may puncture the armor. c. Anchor the armor using sandbags, gravel, or stakes along the perimeter. d. Anchor the armor so it can withstand movement of the discharge. Account for potential changes in the flow direction of the discharge when laying the armor. e. If there is to be a direct stream of high velocity flow, an energy dissipating device may be necessary to prevent failure of the armor. 2. Inspection and Maintenance: a. During the discharge, monitor the armor for failure (tearing) and erosion at the edges of the armor. b. If erosion does occur, implement sediment/turbidity control measures. c. Remove armor when the discharge is complete. d. Sweep up any sediment deposited in the flow path and dispose of appropriately. e. Complete the Planned Discharge Activities Checklist and submit it to Valley Water staff responsible for Water Utility Discharge Pollution Prevention Plan reporting.
BMP-WQ-28	Evaluate Use of Discharge Surface Protection – Flow Diversion	To protect bare soil and vegetated surfaces from erosion by diverting, channeling, or temporarily piping flows over erodible areas to protected areas not subject to erosion: 1. When considering the use of flow diversion, take into account the following: a. There must be a storm drain or paved surface nearby to which the discharge can be diverted. b. The flow channel must be aligned to avoid disruption of traffic, or traffic control measures must be used. c. The flow channel must have sufficient slope to allow the discharge to flow to the storm drain or paved surface. d. The flow channel must be designed to handle the anticipated flow rate. e. Protective armor or temporary piping can be used for high velocity discharges or large flow volume discharges over bare soils or vegetated surfaces. The armor material selected must be able to withstand the flow velocity and movement of the discharge. 2. Divert flows correctly: a. Divert water to a channel using fixed or flexible piping, or another system to capture this flow (e.g. sandbags). b. If armor is used to create a flow channel over the erodible surface clear the area to be protected of rocks and debris which may puncture the armor. Anchor the armor using sandbags, gravel, or stakes along the perimeter. c. If there is to be a direct stream of high velocity flow, an energy dissipating device may be necessary to prevent failure of the armor. 3. Inspection and Maintenance:

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Number	**Title**	**Description**
		a. Inspect the area for flooding resulting from failure of the channel diversion structure or the flow rate exceeding the diversion channel capacity. b. Inspect the channel for erosion along the edges due to overtopping of the channel. c. Monitor the armor for failure (tearing) and erosion at the edges of the armor. d. If erosion does occur along the edges of the channel or armor, implement sediment/turbidity control measures. e. Remove armor when the discharge is complete. f. Sweep up any sediment deposited in the flow path and dispose of appropriately. g. Complete the Planned Discharge Activities Checklist and submit it to Valley Water staff responsible for Water Utility Discharge Pollution Prevention Plan reporting.
BMP-WQ-40	Prevent Water Pollution	Oily, greasy, or sediment laden substances or other material that originate from Project operations and may degrade the quality of surface water or adversely affect aquatic life, fish, or wildlife will not be allowed to enter, or be placed where they may later enter, any waterway. The Project will not increase the turbidity of any watercourse flowing past the construction site by taking all necessary precautions to limit the increase in turbidity as follows: 1. where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases will not exceed 5 percent; 2. where natural turbidity is greater than 50 NTU, increases will not exceed 10 percent; 3. where the receiving water body is a dry creek bed or storm drain, waters in excess of 50 NTU will not be discharged from the Project. 4. Water turbidity changes will be monitored. The discharge water measurements will be made 100 feet downstream of the discharge point. Natural watercourse turbidity measurements will be made in the receiving water 100 feet downstream of the discharge site. Natural watercourse turbidity measurements will be made prior to initiation of Project discharges, preferably at least 2 days prior to commencement of operations.
BMP-WQ-41	Prevent Stormwater Pollution	Suitable erosion control, sediment control, source control, treatment control, material management, and non-stormwater management BMPs will be implemented consistent with the latest edition of the California Stormwater Quality Association “Stormwater Best Management Practices Handbook,” which is available at www.cabmphandbooks.com.
BMP-TR-1	Use Suitable Public Safety Measures	Fences, barriers, lights, flagging, guards, and signs will be installed as determined appropriate by the public agency having jurisdiction, to give adequate warning to the public of the construction and of any dangerous condition to be encountered as a result thereof.

Santa Clara Valley Habitat Plan Conditions		
Number	**Title**	**Description**
VHP Condition 1	Avoid Direct Impacts on Legally Protected Plant and Wildlife Species.	This condition applies to all projects covered under the Habitat Plan and helps to protect species for which environmental permits cannot be granted: Contra Costa goldfields, bald eagle, American peregrine falcon, southern bald eagle, white-tailed kite, California condor, and Ring-tailed cat (= ringtail); also requires compliance with the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act. For detailed information, see Habitat Plan pages 6-7 to 6-8.
VHP Condition 3	Maintain Hydrologic Conditions and Protect Water Quality.	This condition applies to all projects covered by the Habitat Plan and helps protect watershed health, primarily through reducing stormwater discharge and pollutant runoff from project sites. Work with the Habitat Plan lead to determine if NPDES compliance is sufficient for the project or if additional measures are required. For detailed information, see Habitat Plan pages 6-12 to 6-13 and Table 6-2.
Condition 4.	Avoidance and Minimization for In-Stream Projects.	This condition applies to projects that involve in-stream work (e.g., flood protection, bridge rehabilitation, dam repair) and helps to minimize sediment/pollutant discharge into waterways, disturbance of earth and riparian vegetation, and alteration of the hydrologic and hydraulic characteristics of water bodies. For detailed information, see Habitat Plan pages 6-14 to 6-18.
Condition 5.	Avoidance and Minimization Measures for In Stream Operations and Maintenance.	This condition applies to projects that involve operations and maintenance work within and immediately adjacent to the stream channel (e.g., sediment removal, bank stabilization, vegetation management) and helps minimize sediment/pollutant discharge into waterways and disturbance of riparian vegetation. For detailed information, see Habitat Plan pages 6-18 to 6-20.
Condition 11.	Stream and Riparian Setbacks	This condition applies to projects that overlap a stream or stream setback—requirements differ based on project's location in relation to the urban service area. This condition helps minimize impacts on streams by specifying setbacks and buffer zones. For detailed information, see Habitat Plan pages 6-44 to 6-55.
Condition 12.	Wetland and Pond Avoidance and Minimization	This condition applies to projects that are covered under the Habitat Plan and helps to minimize impacts on wetlands and ponds and avoid impacts on high quality wetlands and ponds by prescribing vegetated stormwater filtration features, proper disposal of cleaning materials, and other requirements. For detailed information, see Habitat Plan pages 6-56 to 6-58.
Condition 13	Serpentine and Associated Covered Species Avoidance and Minimization	This condition applies to projects that are located on sites with serpentine soils and helps to minimize or avoid impacts on serpentine soils by prescribing surveys, plant salvage, and other requirements. For detailed information, see Habitat Plan pages 6-58 to 6-59.
Condition 17.	Tricolored Blackbird	This condition applies to projects that are located within 250 feet of any riparian, coastal and valley freshwater marsh and helps to protect tricolored blackbirds by prescribing preconstruction surveys, construction buffer zones, biological monitoring, and other requirements. For detailed information, see Habitat Plan pages 6-69 to 6-71.

Santa Clara Valley Habitat Plan Conditions		
Number	**Title**	**Description**
Condition 19.	Plant Salvage when Impacts are Unavoidable	This condition applies to projects that cannot avoid impacts on covered plants and helps protects covered plants by prescribing salvage whenever avoidance of impacts is not feasible. For detailed information, see Habitat Plan pages 6-74 to 6-76.
Condition 20	Avoid and Minimize Impacts to Covered Plant Occurrences	This condition applies to projects that are located in areas where covered plant species are likely to occur and within a covered plant survey area; this condition helps protect certain plant species by requiring plant surveys, specific avoidance and minimization practices (e.g., using seclusion fencing), and monitoring. For detailed information, see Habitat Plan pages 6-76 to 6-80.

Appendix B. FERC Order Compliance Project Parcels and Real Estate Needs

APN	Ownership	Jurisdiction	Sphere of Influence	Project Use	Real Estate Needs
Anderson Dam Tunnel Construction and Coyote Creek Channel Modifications					
728-34-010	Private	County of Santa Clara	City of Morgan Hill	Staging Area 2	Temporary Construction Easement
728-34-011	Private	County of Santa Clara	City of Morgan Hill	Staging Area 2 (Coyle Property), Access/haul road	Property Acquisition
728-34-017	Valley Water	County of Santa Clara	City of Morgan Hill	Staging Area 3, Disposal Area, Coyote Road widening and turnouts, Existing Intake, Existing Outlet Conduit,	None
728-34-018	Valley Water	County of Santa Clara	City of Morgan Hill	Existing outlet, Staging Area 1	None
728-34-019	Valley Water	City of Morgan Hill	City of Morgan Hill	Temporary dike, Flow control weirs, Southern channel, diversion discharge channel	None
728-34-020	Santa Clara County	City of Morgan Hill	City of Morgan Hill	Reopen north channel, north weir	Property Acquisition (0.65 acres) by fee or land exchange and Memorandum of Understanding (MOU).
729-46-010	Valley Water	County of Santa Clara	City of Morgan Hill	Disposal Area, Existing intake remediation, 8-foot MTBM, disposal area, temporary access road to reservoir	None
729-48-001	Valley Water	City of San Jose	City of San Jose	8-foot MTBM, Staging Area 1, 19-foot tunnel, Diversion outlet structure, Re-opened northern channel, flow control weirs, Anderson Force Main Relocation	None
729-48-002	Valley Water	City of San Jose	City of San Jose	Diversion Tunnel (Upstream Portal for Lake Tap), Trash rack	None

APN	Ownership	Jurisdiction	Sphere of Influence	Project Use	Real Estate Needs
Rim Stability Improvements					
729-37-022	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-021	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-020	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-019	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-018	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
720-37-017	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-016	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-030	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-029	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-013	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-37-012	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)

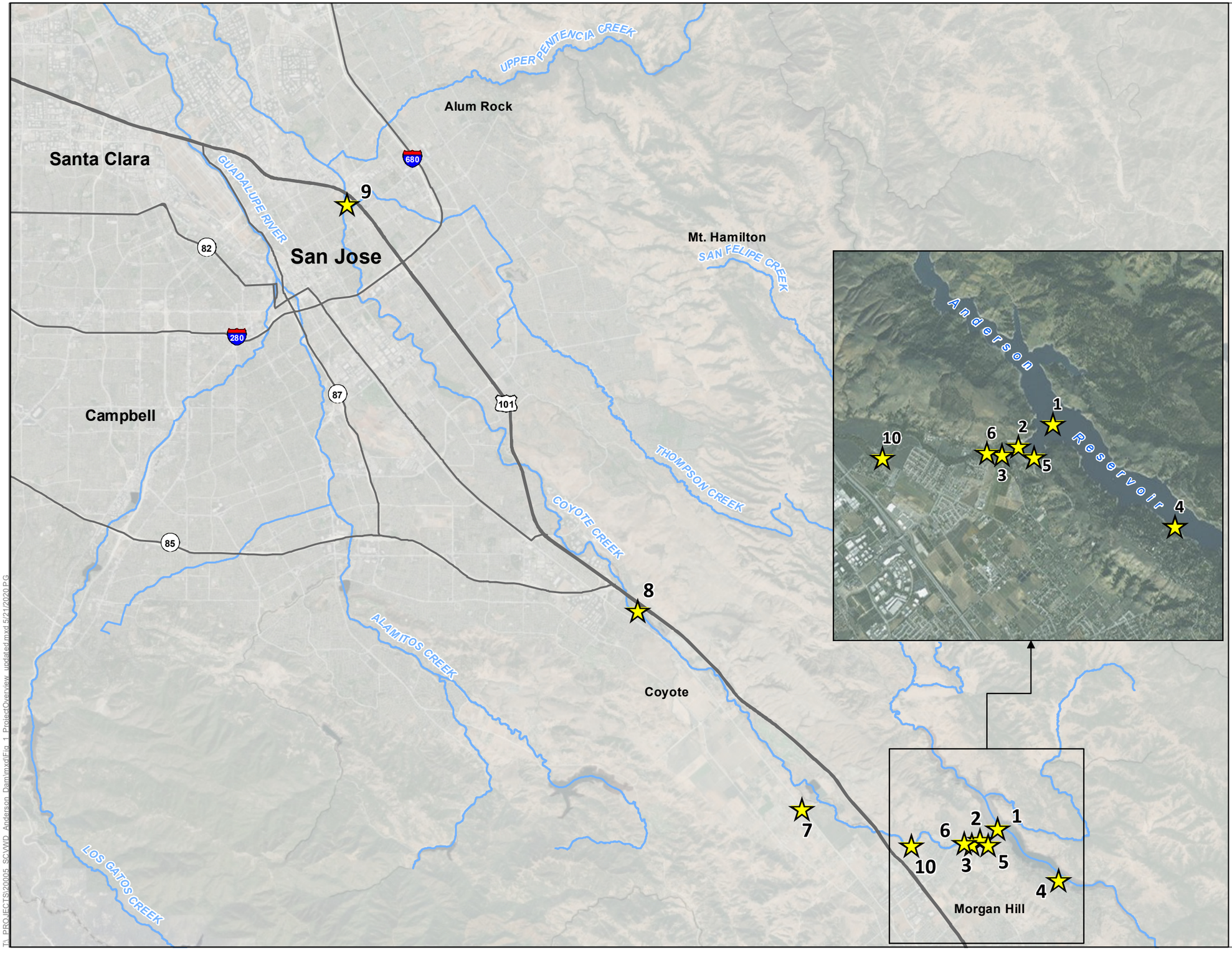
APN	Ownership	Jurisdiction	Sphere of Influence	Project Use	Real Estate Needs
729-37-011	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially Temporary Construction Easement
729-37-010	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-46-010	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide remediation access road	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-36-001	Santa Clara County	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Master License Agreement-Exhibit B and/or MOU
729-32-015	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-32-014	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-32-013	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-46-010	Valley Water	County of Santa Clara	City of Morgan Hill	Potential landslide remediation and access road	None
729-46-013	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Permission to Enter and potentially an Easement (Permanent or Temporary TBD)
729-46-003	Santa Clara County	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Master License Agreement-Exhibit B and/or MOU
729-46-010	Valley Water	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	None

APN	Ownership	Jurisdiction	Sphere of Influence	Project Use	Real Estate Needs
729-46-004	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring	None
729-46-013	Private Residence	County of Santa Clara	City of Morgan Hill	Landslide monitoring	Permission to Enter
729-46-014	Santa Clara County	County of Santa Clara	City of Morgan Hill	Landslide monitoring and potentially remediations	Master License Agreement-Exhibit B and/or MOU
729-46-010	Valley Water	County of Santa Clara	City of Morgan Hill	Potential landslide remediation and access road	None
Coyote Creek Flood Management Measures					
241-05-014	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5B.2	Permanent Easement
241-05-015	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5B.2	Permanent easement
241-05-001	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5B.2	Permanent easement
241-04-024	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5B.2	Permanent easement
254-17-052	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5C	Permanent easement
254-13-101	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5C	Permanent easement
254-13-090	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5C	Permanent easement

APN	Ownership	Jurisdiction	Sphere of Influence	Project Use	Real Estate Needs
254-17-043	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5C	Permanent easement
254-17-073	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 5C	Permanent easement
467-29-038	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7A.1	Permanent easement or Property Acquisition
467-29-039	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7A.1	Permanent easement or Property Acquisition
467-29-027	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7B	Permanent easement or Property Acquisition
467-29-026	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7B	Permanent easement or Property Acquisition
467-29-036	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7B	Permanent easement or Property Acquisition
467-29-035	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7B	Permanent easement or Property Acquisition
467-39-103	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7C	Permanent easement or Property Acquisition
467-39-102	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7C	Permanent easement or Property Acquisition
467-50-065	Private	County of Santa Clara	City of San Jose	Acquire or Elevate Structure in Reach 7D.2	Permanent easement or Property Acquisition

APN	Ownership	Jurisdiction	Sphere of Influence	Project Use	Real Estate Needs
467-29-029	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7A.2	Permanent easement
467-29-028	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7A.2	Permanent easement
467-39-101	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement
467-39-100	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement
467-50-077	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement
467-50-076	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement
467-50-075	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement
467-50-074	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement
467-50-073	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement
467-50-069	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement
467-50-068	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.1	Permanent easement

APN	Ownership	Jurisdiction	Sphere of Influence	Project Use	Real Estate Needs
472-31-042	City of San Jose	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.3	Permanent easement
472-31-041	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.3	Permanent easement
472-31-040	Private	County of Santa Clara	City of San Jose	Floodwall in Reach 7D.3	Permanent easement



Source: ESRI 2020; SCVWD 2020

Project Features

1. Drawdown Anderson Reservoir
2. Anderson Dam Tunnel
3. Tunnel Operations
4. AMM: Reservoir Rim Stability
5. AMM: Stabilize Intake Structure
6. AMM: Creek Channel Modifications
7. AMM: Cross Valley Pipeline Extension
8. AMM: Coyote Percolation Dam
9. AMM: Flood Control Measures
10. AMM: Fish Protection Measures

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Figure 1.
Project Overview

Horizon WATER and ENVIRONMENT

FERC Order
Compliance Project

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Basemap Imagery: NAIP 2016

FOCP Project Boundary

Anderson Dam Tunnel Construction Area

Meters
0 200 400
0 500 1,000
Feet

H:\AndersonDam\text_2020FOCP APE_footprint.mxd 5/7/2020

Figure 2. Anderson Dam Tunnel Project Area

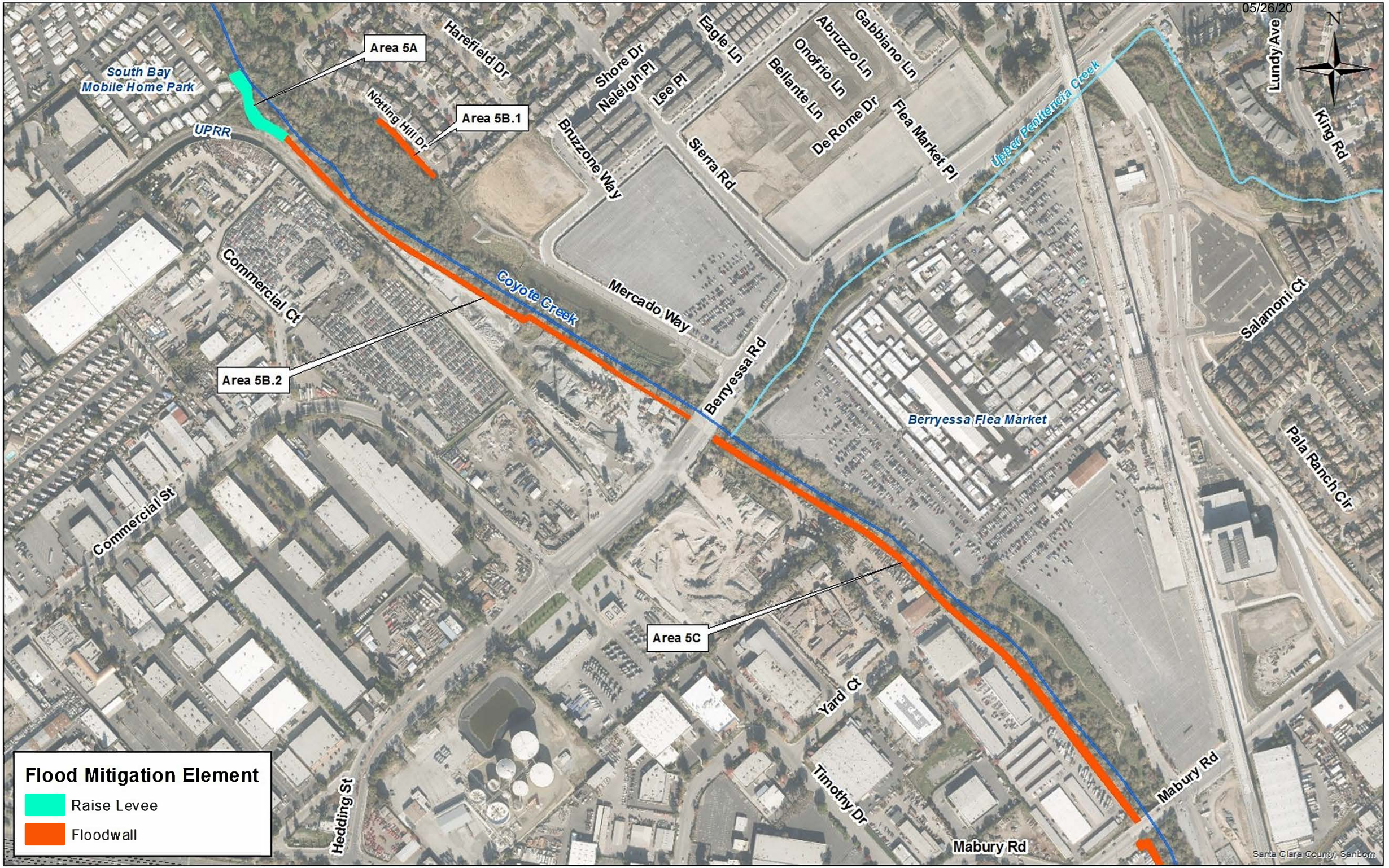

Figure 3a. Coyote Creek Measures (Reach 5)

Figure 3b. Coyote Creek Measures (Reach 6)

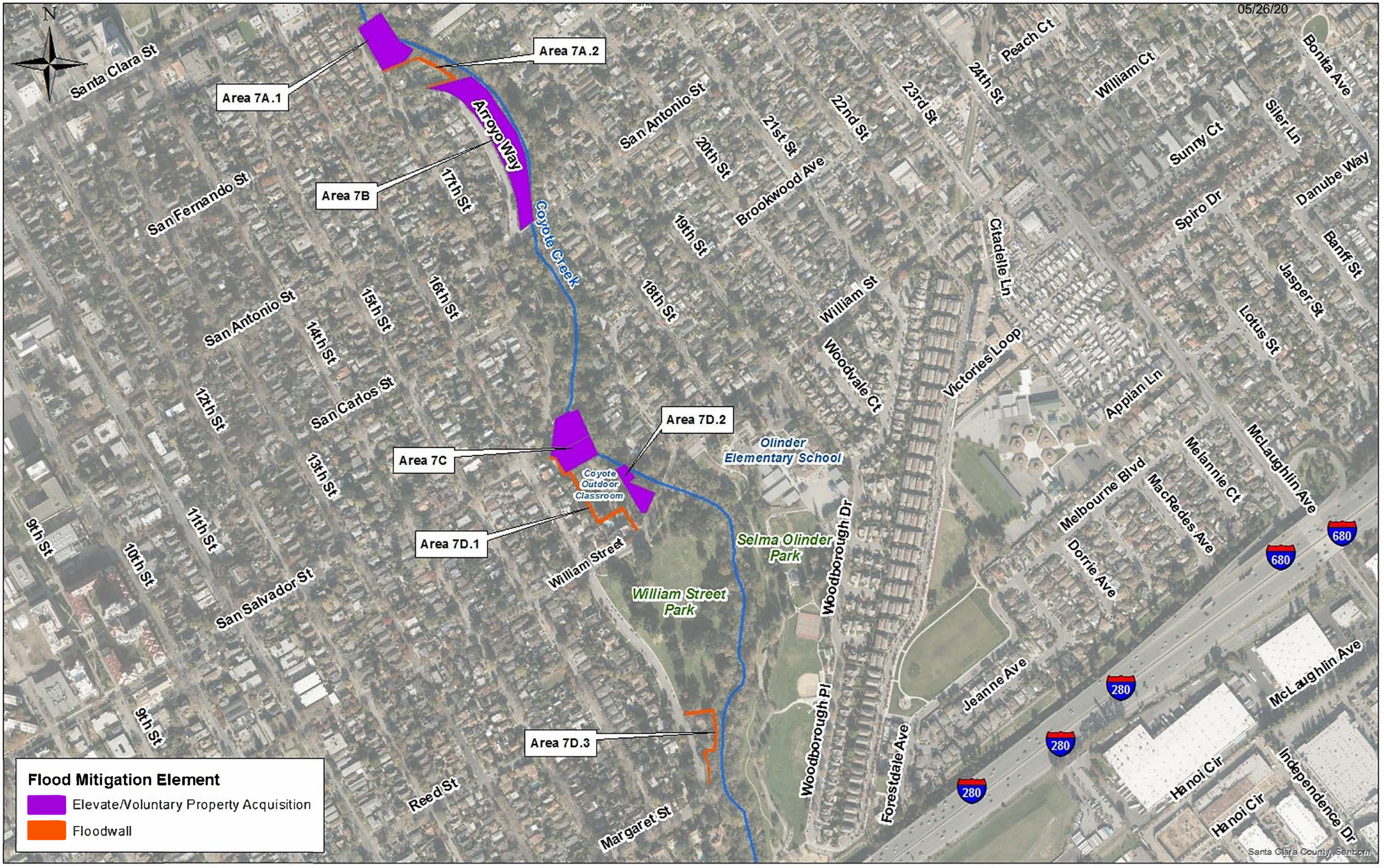

Figure 3c. Coyote Creek Measures (Reach 7)