

**BOARD OF DIRECTORS
SANTA CLARA VALLEY WATER DISTRICT**

RESOLUTION NO. 2025-

**CERTIFYING THE FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT FOR
THE PIPELINE MAINTENANCE PROGRAM AND ADOPTING CEQA FINDINGS OF FACT,
STATEMENT OF OVERRIDING CONSIDERATIONS, AND MITIGATION
MONITORING AND REPORTING PROGRAM**

WHEREAS, the Santa Clara Valley Water District (“Valley Water”) proposes to update its existing Pipeline Maintenance Program (PMP); and

WHEREAS, pursuant to the California Environmental Quality Act (“CEQA”) (Public Resources Code §§ 21000 et seq.), Valley Water as lead agency has prepared a Final Program Environmental Impact Report (“PEIR”) for the PMP (State Clearinghouse Number #2023100671); and

WHEREAS, prior to approving a project for which an PEIR was prepared, Valley Water as the lead agency is required to certify a Final PEIR, adopt written findings of fact for each significant environmental effect of the PMP, adopt a statement of overriding considerations, and adopt a mitigation monitoring and reporting program, in accordance with CEQA Guidelines §§ 15090, 15091, 15093, and 15097; and

WHEREAS, Valley Water properly prepared and circulated a Notice of Preparation for the PEIR between October 17, 2023, through November 22, 2023, as required by CEQA Guidelines § 15082(a); and

WHEREAS, pursuant to CEQA Guidelines § 15082(c), Valley Water held an PEIR scoping meeting on November 2, 2023, via webinar; and

WHEREAS, following filing a Notice of Completion and Notice of Availability (“NOA”) with the Governor’s Office of Land Use and Climate Innovation (formerly the Office of Planning and Research) and making the NOA publicly available, a Draft PEIR was published on September 12, 2024, and was circulated for public review for a 46-day public review period, through October 28, 2024; and

WHEREAS, Valley Water received four written comment letters on the Draft PEIR; and

WHEREAS, Valley Water evaluated and prepared written responses to these comments as required by CEQA Guidelines § 15088; and

WHEREAS, Valley Water prepared the Final PEIR as required by CEQA Guidelines § 15132, consisting of a comprehensive revision to the Draft PEIR (including appendices), public comments on the Draft PEIR received during the Draft PEIR public review period, a list of commenters, and responses to these public comments; and

WHEREAS, Valley Water made the Final PEIR publicly available on its website on April 8, 2025; and

WHEREAS, pursuant to CEQA Guidelines § 15088(b), Valley Water provided proposed written response to all public agencies that submitted timely comments on the Draft PEIR at least 10 days prior to PEIR certification; and

WHEREAS, the Final PEIR satisfies all requirements of CEQA and the CEQA Guidelines; and

WHEREAS, following publication of the Final PEIR, Valley Water staff recommended that the Valley Water Board of Directors approve the PMP; and

WHEREAS, the Valley Water Board of Directors, at its regular session on April 22, 2025, reviewed and considered information on the significant environmental impacts of the PMP, including information in the Final PEIR, comments on the Draft PEIR received during and after the close of the PEIR public review period, and written and oral testimony at PEIR and all related meetings and hearings; and

WHEREAS, no information added to the Draft PEIR, no comments made in the public meetings conducted by Valley Water, or any additional information submitted to Valley Water have produced significant new information requiring Draft PEIR recirculation under CEQA Guidelines § 15088.5; and

WHEREAS, Valley Water has prepared CEQA Findings of Fact, in compliance with Public Resources Code §§ 21081 and 21081.5 and CEQA Guidelines § 15091, for every significant impact of the PMP identified in the PEIR, including an explanation of the rationale for each finding (attached as Exhibit 1); and

WHEREAS, the PMP will have significant impacts that cannot be mitigated to less than significant levels, and Valley Water has prepared a Statement of Overriding Considerations in compliance with Public Resources Code § 21081(b) and CEQA Guidelines § 15093 (also included in Exhibit 1), which concludes that specific economic, legal, social, technological, and other benefits of the Project outweigh the significant and unavoidable impacts identified in the PEIR; and

WHEREAS, Valley Water has prepared a Mitigation Monitoring and Reporting Program in compliance with Public Resources Code § 21081.6(a) and CEQA Guidelines § 15097 (Exhibit 2) to monitor implementation of the mitigation measures identified in the Final PEIR during project implementation; and

WHEREAS, all other legal prerequisites to the adoption of this Resolution have occurred;

NOW, THEREFORE BE IT RESOLVED by the Valley Water Board of Directors that:

1. Pursuant to CEQA Guidelines § 15090, the Board of Directors certifies the Final PEIR, certifying that:
 - a. The Final PEIR has been completed in compliance with CEQA.
 - b. Prior to making a decision on the PMP, the Final PEIR was presented to the Board of Directors, which has reviewed and considered the information contained in the Final PEIR and the record including, but not limited to, technical reports, oral and written comments provided by the public and state and local agencies, and responses to said comments contained in the Final PEIR.
 - c. The Final PEIR reflects the independent judgement and analysis of Valley Water.

2. The Board of Directors makes and adopts the Findings of Fact, as required by Public Resources Code §§ 21081 and 21081.5 and CEQA Guidelines § 15091, which are attached as Exhibit 1 and incorporated fully by this reference; and
3. The Board of Directors adopts the Statement of Overriding Considerations, as required by Public Resources Code § 21081(b) and CEQA Guidelines § 15093, which is also included in Exhibit 1 and incorporated fully by this reference; and
4. The Board of Directors adopts the Mitigation Monitoring and Reporting Program, as required by Public Resources Code § 21081.6(a) and CEQA Guidelines § 15097, which is attached as Exhibit 2 and incorporated fully by this reference.
5. The documents and materials which constitute the record of proceedings upon which this decision is based are available from the Clerk of the Board of Valley Water, 5750 Almaden Expressway, San Jose, CA 95118-3614.
6. The Chief Executive Officer is hereby authorized and directed, on behalf of Valley Water's Board of Directors, to execute any such documents and to perform any such acts as may be deemed necessary or appropriate to accomplish the intent of this resolution.

PASSED AND ADOPTED by the Board of Directors of the Santa Clara Valley Water District by the following vote on April 22, 2025.

AYES: Directors

NOES: Directors

ABSENT: Directors

ABSTAIN: Directors

SANTA CLARA VALLEY WATER DISTRICT

TONY ESTREMER
Chair, Board of Directors

ATTEST: CANDICE KWOK-SMITH

Interim Clerk, Board of Directors

EXHIBIT A COVERSHEET

FINAL ENVIRONMENTAL IMPACT REPORT FOR THE PIPELINE MAINTENANCE PROGRAM: FINDING OF FACT AND STATEMENT OF OVERRIDING CONSIDERATION

No. of Pages: 50

Exhibit Attachments: None

EXHIBIT 1

FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE PIPELINE MAINTENANCE PROGRAM: FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS

I. INTRODUCTION

This document presents Findings of Fact (Findings) by the Board of Directors (Board) of the Santa Clara Valley Water District (Valley Water) regarding the Final Program Environmental Impact Report (Final PEIR) for the Pipeline Maintenance Program (PMP or Program), for which Valley Water is acting as the California Environmental Quality Act (CEQA) lead agency. (State Clearinghouse No. 2023100671.) The Findings presented herein were prepared in compliance with CEQA and the State's CEQA Guidelines. Additional substantial evidence supporting all Findings made herein is contained in the Final EIR and/or the record of proceedings.

The Findings are organized as follows:

- Section I provides an introduction and describes the need for these Findings.
- Section II provides the background and context for the PMP.
- Section III describes the Final PEIR Proposed Program, including the PMP objectives, and describes the Alternative.
- Section IV describes the alternatives analyzed in the PEIR.
- Section V describes the best management practices (BMPs) that would be implemented during Program implementation to avoid or minimize adverse effects on the environment.
- Section VI describes the PEIR process and lists the comments received on the Draft PEIR.
- Section VII describes the Final PEIR and the Final PEIR certification process.
- Section VIII summarizes the administrative record upon which the Board based its Findings.
- Section IX presents Findings for the PMP regarding environmental impacts found to be less than significant, environmental impacts that can be mitigated to less than significant, significant environmental impacts that cannot be mitigated to less than significant), and the PMP's contributions to cumulative impacts.
- Section X presents Findings regarding alternatives analyzed in the PEIR, alternatives considered but rejected from further analysis, and comments on the Draft PEIR.
- Section XI presents Findings that no significant new information has been added to the PEIR in Draft PEIR comments, responses to Draft PEIR comments, and Draft PEIR revisions made in the Final PEIR that would trigger Draft PEIR recirculation.

- Section XII describes the Mitigation Monitoring and Reporting Program (MMRP) for the PMP.
- Section XIII presents a Statement of Overriding Considerations for impacts that cannot be mitigated to a less than significant level.
- Section XIV contains references cited in these Findings.

The following paragraphs summarize CEQA's requirements for Findings and a Statement of Overriding Considerations. If a proposed project would have significant adverse effects on the environment, CEQA requires the lead agency to prepare findings describing how those effects would be reduced or avoided. Under Public Resources Code Section 21081[a], several findings are possible:

- (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment.
- (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

Public Resources Code Section 21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." CEQA Guidelines Section 15364 adds another factor: "legal" considerations. [See also *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 565.] The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project [*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417]. "[F]easibility" under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors." [*Id.*; see also *Sequoia Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715.] Alternatives and mitigation measures may also be determined to be infeasible if they do not "fully satisfy the objectives associated with a proposed project" or are "undesirable from a policy standpoint." [*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 998, 1000.]

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project, or in this case program, against its unavoidable environmental risks when determining whether to approve the project (CEQA Guidelines Section 15093). For a project that has significant impacts that cannot feasibly be avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a Statement of Overriding Considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects" [CEQA Guidelines Sections 15093, 15043(b); see also Public Resources Code Section 21081(b)].

II. BACKGROUND

Valley Water conducts routine inspection and maintenance on its water conveyance systems to uphold the reliability and quality of water service. Before 2007, such routine activities were subject to case-by-case environmental impact reviews under CEQA. Recognizing the need for a more systematic approach, Valley Water implemented the original Pipeline Maintenance Program in 2007. This program introduced structured processes for pipeline inspection, rehabilitation, and maintenance, alongside comprehensive environmental documentation and permitting protocols.

Since the 2007 PMP's inception, advancements in regulatory standards and operational procedures have necessitated updates to the program. These updates are codified in the revised PMP and its accompanying manual, which align pipeline maintenance practices with current environmental and regulatory frameworks. The updated PMP documents typical maintenance activities and establishes a streamlined process for determining the appropriate level of environmental review for these activities.

The updated PMP covers the inspection, maintenance, rehabilitation, and repair of existing conveyance systems, including pipelines and tunnels, for raw, treated, and recycled water. This coverage extends to facilities within Santa Clara County and portions of San Benito and Merced counties, ensuring sustainable water service throughout the region.

III. DESCRIPTION OF THE FINAL PEIR PROPOSED PROGRAM

The updated PMP includes the inspection, maintenance, rehabilitation, and repair of over 150 miles of raw, treated, and recycled water conveyance pipelines, as well as associated infrastructure. This infrastructure comprises valves, vaults, storage tanks, pump stations, surge tanks, access roads, and related appurtenances. Inspection and maintenance activities include:

- Inspection Activities
 - External inspections (ground-disturbing and non-ground-disturbing)
 - Internal inspections
- Facility Maintenance Activities
 - Buried and exposed pipeline component maintenance, including pipeline sections, valves, and fittings
 - Tunnel maintenance
 - Manhole, meter, vault, and related appurtenance maintenance
 - System instrumentation, controls, and monitoring
 - Backup generator maintenance
 - Pump station and facility maintenance
 - Storage tank and facility maintenance
 - Surge tank maintenance
 - Access road and support structure maintenance
 - Bank stabilization, erosion control, and energy dissipation device maintenance

- Vegetation management.

The updated PMP is designed to ensure compliance with CEQA. Key updates to the PMP include expanded coverage for recycled water pipelines, the integration of adaptive management principles, and alignment with the Valley Water Board's Ends policies and long-term strategic goals.

The program is guided by the following objectives:

Operational Integrity: Define standard practices to maintain and enhance the reliability of the water conveyance system.

Environmental Stewardship: Incorporate advanced environmental review and permitting processes, minimizing ecological impacts while supporting regulatory compliance.

Adaptability and Efficiency: Streamline documentation and improve the flexibility of maintenance activities through ongoing program evaluation and refinement.

Sustainability: Support Valley Water's One Water approach and the Countywide Water Reuse Master Plan by enhancing the operational reliability of recycled and purified water systems.

The updated PMP introduces a systematic approach to maintenance, integrating robust Best Management Practices (BMPs) and Avoidance and Minimization Measures (AMMs) to mitigate impacts. Valley Water staff will utilize an updated manual, detailed workflows, and adaptive management protocols to align maintenance with regulatory frameworks and environmental considerations.

The updated PMP is critical for ensuring uninterrupted water delivery, minimizing environmental risks, and supporting regional water supply goals. It will bolster Valley Water's capacity to respond to challenges such as droughts, population growth, and aging infrastructure, while maintaining compliance with CEQA and related policies.

III.A PROPOSED PROGRAM DESCRIBED IN FINAL EIR

The PMP manual outlines the key maintenance activities required to ensure the operability and safety of Valley Water's water conveyance systems. These activities constitute the individual projects that Valley Water implements on the pipelines. The activities are categorized into Inspection Activities and Facility Maintenance Activities, each encompassing specific tasks designed to maintain, repair, and inspect pipelines, associated infrastructure, and the surrounding environment. Detailed descriptions for each activity are provided in the Final PEIR Chapter 2, Project Description.

Inspection Activities

1. External Inspections:

- a. **Non-Ground-Disturbing:** Regularly scheduled visual checks of aboveground and exposed infrastructure, requiring minimal equipment and typically completed within 1-2 days.

- b. **Ground-Disturbing:** More invasive inspections, such as potholing or exposure of buried pipelines, involving heavy equipment and lasting up to 5 days.

2. Internal Inspections:

- a. Conducted using specialized equipment like CCTV cameras or magnetic flux devices.
- b. Larger inspections may require dewatering pipelines and employing confined-space protocols.

Facility Maintenance Activities

1. **Buried and Exposed Pipeline Component Maintenance:** Routine servicing of valves, fittings, and joints, along with occasional pipeline section replacements to ensure operational efficiency and minimize water loss.
2. **Tunnel Maintenance:** Repairs or replacement of tunnel liners and monitoring equipment to maintain structural integrity.
3. **Manhole, Meter, and Vault Maintenance:** Includes cleaning, repairing, or replacing structures providing access to pipelines or housing critical components.
4. **System Instrumentation and Monitoring:** Maintenance of electronic monitoring systems like sensors and remote controllers to ensure data accuracy and operational reliability.
5. **Pump Stations and Backup Generators:** Routine testing and maintenance to secure consistent power and prevent operational disruptions.
6. **Storage Tanks and Surge Tanks:** Cleaning, inspection, and repair of tanks to ensure safe water storage and distribution.
7. **Access Roads and Support Structures:** Maintenance activities such as grading, paving, and erosion control to ensure safe access to facilities.
8. **Bank Stabilization and Erosion Control:** Measures to prevent damage to infrastructure caused by runoff or water flow, often incorporating habitat-friendly solutions.
9. **Vegetation Management:** Activities to clear vegetation for fire prevention, safety, and accessibility, employing mechanical, manual, or chemical methods.

Each Inspection or Facility Maintenance activity is completed through a set of common tasks. These tasks form the foundation of the updated PMP, providing a framework for evaluation through outlined general procedures, schedules, staffing, and required equipment. While not exhaustive, the descriptions provide essential guidance for PMP implementation. PMP task categories are evaluated for each activity in the PMP Final PEIR, they include:

- **General Tasks**

- Setup, Staging, and Access
 - Control of Hazardous Energy (Lockout/Tagout)
 - Pump-Out of Vaults/Manholes
- **Pipeline Draining and Refilling Tasks**
 - Isolation
 - Dewatering
 - Refilling
- **Pipeline System Infrastructure Maintenance and Repair Tasks**
 - Excavation, Backfill, Construction, and Other Ground Disturbance
 - Repair of Pipeline System Infrastructure
 - Non-Ground-Disturbing Repair

Full descriptions of the PMP activities and associated tasks are included in the PMP Final PEIR, Chapter 2, Project Description.

IV. ALTERNATIVES ANALYZED IN PEIR

CEQA Guidelines Section 15126.6(a) requires EIRs to evaluate a reasonable range of alternatives to the proposed project, focusing on alternatives that appear to be feasible, would meet the project objectives, and would avoid or substantially lessen at least one of the proposed project's significant environmental effects. EIRs must also analyze the No Project Alternative pursuant to CEQA Guidelines Section 15126.6 to provide decision-makers the information necessary to compare the relative impacts of approving the Project and not approving the Project.

The Draft EIR analyzed one alternative in addition to the No Project Alternative in Chapter 5, Alternatives, which sets forth the objectives of the Program, summarizes the Program's significant environmental impacts, discusses the alternatives considered but eliminated from further analysis, describes the alternatives evaluated in detail, and compares the impacts of the alternative evaluated to the impacts of the Program. The alternative is described in Chapter 5, in Section 5.4, Alternatives Evaluated in the Draft EIR, of the Final EIR. Table 1 provides a summary of the evaluation to whether or not the Program and alternatives meet the Program objectives.

TABLE 1
SUMMARY OF ELEMENTS IN PROPOSED PROJECT AND ALTERNATIVES

Program Objectives	No Program	Less Frequent Inspection and Maintenance Alternative	Pipeline Maintenance Program
Define standard practices and procedures for maintenance activities associated with Valley Water's conveyance systems.	No	Yes	Yes
Enhance operational flexibility and adaptive management opportunities for evaluating and improving the maintenance activities defined in the PMP through learned experiences and successive planning over time.	No	No	Yes
Streamline the environmental documentation and local, State, and federal permit processing where required to facilitate efficient and timely maintenance and repair of the pipeline system.	No	No	Yes

IV.A NO PROJECT ALTERNATIVE

Under the No Project Alternative, Valley Water would continue operating under the 2007 PMP and EIR, which do not address several modern maintenance needs, such as recycled water pipelines, vegetation management, and facilities like pump stations and storage tanks. These activities would require individual CEQA reviews, leading to inconsistent procedures, delays, and potentially longer intervals between maintenance, increasing the risk of pipeline failures or equipment malfunctions. The physical activities themselves would remain similar, but the lack of updated, streamlined planning and review processes could result in less effective operational inefficiencies. The physical activities occurring under the No Project Alternative would be the same as with the proposed PMP update; there would be no lessened environmental impacts.

IV.B Less Frequent Inspection and Maintenance Alternative

Under the Less Frequent Inspection and Maintenance Alternative, pipeline inspections would shift from every 5 years to every 20 years, increasing the risk of larger, more complex, and costly maintenance needs. Deferred maintenance would lead to more frequent pipeline failures and emergency repairs, straining Valley Water's resources and resulting in a reactive, rather than preventative, approach to maintenance. Standalone CEQA compliance would still be required for activities not covered in the revised PMP, adding further delays and challenges.

The Less Frequent Inspection and Maintenance Alternative would temporarily reduce environmental impacts such as ground disturbance, emissions, and noise due to the decreased frequency of maintenance activities. However, deferred maintenance increases the likelihood of larger, more complex repairs and emergency projects, which could result in greater long-term impacts on hydrology, air quality, and sensitive species. Emergency repairs, which bypass mitigation measures like BMPs and AMMs, would further exacerbate environmental effects.

V. BEST MANAGEMENT PRACTICES

During Project implementation, Valley Water would implement a range of BMPs, program-specific avoidance and minimization measures (AMMs) and Santa Clara Valley Habitat Plan (VHP) conditions to avoid or minimize adverse effects on the environment. These measures are presented in Final PEIR Chapter 2, Project Description, in Section 2.7, Updated PMP Manual Implementation. The measures include Valley Water BMPs generally used by Valley Water for construction projects from the 2014 Best Management Practices Handbook (Valley Water 2014), program-specific AMMs to reduce impacts on specific resources not covered in Valley Water's general BMPs or in the VHP, and avoidance and minimization measures from the VHP conditions (ICF International 2012) to reduce specific biological impacts. Relevant BMPs, AMMs, and VHP conditions have been incorporated into the Program and are discussed within the context of each resource topic evaluation in the PEIR impact analyses.

Table 2 summarizes the relevant BMPs, AMMs, and VHP conditions. Full definitions and details for the BMPs are included in Appendix C, AMMs are provided in Section 2.7.4, Program-Specific Avoidance and Minimization Measures, and VHP Conditions are defined in Final PEIR Section 2.7.5, Applicable VHP Conditions.

TABLE 2
RELEVANT BMPs, AMMs, AND VHP CONDITIONS

BMP, AMM, or VHP No.	BMP, AMM, or VHP Condition Title
BMP AQ-2	Avoid Stockpiling Odorous Materials
BMP BI-3	Remove Temporary Fills
BMP BI-4	Minimize Adverse Effects of Pesticides on Non-Target Species
BMP BI-5	Avoid Impacts to Nesting Migratory Birds
BMP BI-6	Avoid Impacts to Nesting Migratory Birds from Pending Construction
BMP BI-7	Minimize Impacts to Vegetation from Survey Work
BMP BI-8	Choose Local Ecotypes of Native Plants and Appropriate Erosion-Control Seed Mixes
BMP BI-9	Restore Riffle/Pool Configuration of Channel Bottom
BMP BI-10	Avoid Animal Entry and Entrapment
BMP BI-11	Minimize Predator Attraction
BMP HM-5	Comply with Restrictions on Herbicide Use in Upland Areas
BMP HM-6	Comply with Restrictions on Herbicide Use in Aquatic Areas
BMP HM-7	Restrict Vehicle and Equipment Cleaning to Appropriate Locations
BMP HM-8	Ensure Proper Vehicle and Equipment Fueling and Maintenance
BMP HM-9	Ensure Proper Hazardous Materials Management
BMP HM-10	Utilize Spill Prevention Measures
BMP HM-11	Ensure Worker Safety in Areas with High Mercury Levels
BMP HM-12	Incorporate Fire Prevention Measures
BMP WQ-1	Conduct Work from Top of Bank
BMP WQ-2	Evaluate Use of Wheel and Track-Mounted Vehicles in Stream Bottoms
BMP WQ-3	Limit Impact of Pump and Generator Operation and Maintenance
BMP WQ-4	Limit Impacts from Staging and Stockpiling Materials
BMP WQ-5	Stabilize Construction Entrances and Exits
BMP WQ-6	Limit Impact of Concrete Near Waterways

BMP, AMM, or VHP No.	BMP, AMM, or VHP Condition Title
BMP WQ-8	Minimize Hardscape in Bank Protection Design
BMP WQ-9	Use Seeding for Erosion Control, Weed Suppression, and Site Improvement
BMP WQ-10	Prevent Scour Downstream of Sediment Removal
BMP WQ-11	Maintain Clean Conditions at Work Sites
BMP WQ-15	Prevent Water Pollution
BMP WQ-16	Prevent Stormwater Pollution
BMP WQ-17	Manage Sanitary and Septic Waste
AMM HYD-1	Stormwater Control and Pollution Prevention
AMM HYD-2	Obtain Storm Drain Capacity Information
AMM HYD-3	Erosion Control Plan
AMM HYD-4	Consider Water Release Volume Reduction Options
AMM HYD-5	Flow Diversion Measure Implementation
AMM HYD-6	Erosion Control and Dewatering Design
AMM HYD-7	Monitor Receiving Water
AMM HYD-8	Monitor Chlorine and Ammonia Levels for Water Releases from Treated Water Pipelines
AMM HYD-9	Erosion Control and Monitoring
AMM HYD-10	Inspection and Restoration of Eroded Areas
AMM HYD-11	Prevent Releases to Water Bodies at Flood Stage
AMM GEO-1	Avoidance of Access Routes with Slopes Greater than 20 Percent
AMM BIO-1	Biologist Review
AMM BIO-2	Employee/Contractor Training
AMM BIO-3	Adhere to Pesticide Injunction Requirements
AMM BIO-4	Prevention of Spread or Mobilization of Plant Pathogens and Invasive Plants
AMM BIO-5	Aquatic Invasive Species Decontamination
AMM BIO-6	Release Rates
AMM BIO-7	Additional Protection of Nesting Birds
AMM BIO-8	Work Windows for Salmonid Streams
AMM BIO-9	Herbicide Application in Sensitive Habitats
AMM HAZ-1	Aquatic Protection from Hazardous Wastes
AMM HAZ-2	Secondary Containment Storage
AMM HAZ-3	Equipment and Fluid Storage
AMM HAZ-4	Hazardous Materials Transport Requirements
AMM HAZ-5	Worker Wash Stations
AMM HAZ-6	Avoid Exposing Soils with High Mercury Levels
AMM HAZ-7	Existing Hazardous Sites
AMM TRA-1	Traffic Control Plan
AMM TRA-2	Equipment Routing near Roads and Pedestrian Pathways
AMM AIR-1	Implement BAAQMD Dust Control Measures
AMM GHG-1	GHG Efficient Equipment
AMM GHG-2	Limiting Portable Generators
AMM GHG-3	Carpool Engagement

BMP, AMM, or VHP No.	BMP, AMM, or VHP Condition Title
AMM REC-1	Notify Agencies with Jurisdiction and Coordinate Regarding Potential Disturbance to Trails and Areas Adjacent to Parks
AMM REC-2	Prepare and Implement a Construction Operations Plan
AMM REC-3	Repair Any PMP-Related Damage to Trails or Adjacent Park Facilities
AMM REC-4	Direct Releases to Avoid Crossing Trails and Slopes within Recreational Areas
AMM NOI-1	Construction Noise Reduction Measures
AMM AES-1	Avoid Staging Near Scenic Resources
AMM UT-1	Utility Coordination
Condition 1	Avoid Direct Impacts on Legally Protected Plant and Wildlife Species
Condition 3	Maintain Hydrologic Conditions and Protect Water Quality
Condition 4	Avoidance and Minimization for In-Stream Projects
Condition 5	Avoidance and Minimization Measures for In-Stream Operations and Maintenance
Condition 7	Rural Development Design and Construction Requirements
Condition 8	Implement Avoidance and Minimization Measures for Rural Road Maintenance
Condition 11	Stream and Riparian Setbacks
Condition 12	Wetland and Pond Avoidance and Minimization
Condition 13	Serpentine and Associated Covered Species Avoidance and Minimization
Condition 14	Valley Oak and Blue Oak Woodland Avoidance and Minimization
Condition 15	Western Burrowing Owl
Condition 16	Least Bell's Vireo
Condition 17	Tricolored Blackbird
Condition 18	San Joaquin Kit Fox
Condition 19	Plant Salvage when Impacts are Unavoidable
Condition 20	Avoid and Minimize Impacts to Covered Plant Occurrences

VI. EIR PROCESS

In accordance with Section 15082 of the CEQA Guidelines, Valley Water, as the CEQA lead agency, prepared a Notice of Preparation (NOP). On October 17, 2023, the NOP was circulated to the public; the Governor's Office of Planning and Research; responsible, trustee, and other relevant local, state, and federal agencies; and other interested parties of the public. The 30-day review period for the NOP remained open through November 22, 2023. Valley Water received four comment letters in response to the NOP from the following organizations: California Department of Transportation, California Department of Fish and Wildlife (CDFW), National Historic Preservation Act, and Santa Clara County Parks and Recreation Department. On November 2, 2023, Valley Water held public scoping meeting via webinar, no public comments were received.

The Draft PEIR was published on September 12, 2024, and was circulated for review and comment by the public and other interested parties, agencies, and organizations for an initial 45-day public review period. A Notice of Completion and a Notice of Availability for the Draft PEIR were filed with Governor's Office of Planning and Research. In response to a request by CDFW, the public review period was extended until November 4, 2024. The Draft PEIR was available for public review during the comment period at the following locations:

CDFW, the public review period was extended until November 4, 2024. The Draft PEIR was available for public review during the comment period at the following locations:

- online at: www.valleywater.org/project-updates/pipeline-maintenance-program
- Valley Water Headquarters, located at 5750 Almaden Expressway, San José
- public libraries:
 - Valley Water, 5750 Almaden Expressway, San José, CA 95118
 - Los Gatos Library, 100 Villa Avenue, Los Gatos, CA 95030
 - Cupertino Library, 10800 Torre Avenue, Cupertino, CA 95014
 - Milpitas Library, 60 North Main Street, Milpitas, CA 95035
 - Morgan Hill Library, 660 West Main Avenue, Morgan Hill, CA 95037
 - Gilroy Library, 350 West 6th Street, Gilroy, CA 95020
 - Evergreen Branch Library, 2635 Aborn Road, San José, CA 95121
 - Martin Luther King Branch Library, 150 E. Fernando Street, San José, CA 95121
 - San Benito County Library, 470 Fifth Street, Hollister, CA 95023
 - Merced County Library, 1312 South 7th Street, Los Banos, CA 93635
 -

Valley Water encouraged public agencies, organizations, community groups, and all other interested persons to provide written comments on the Draft PEIR prior to the end of the public review period.

A total of four comment letters or other written documents such as emails were received. Table 3 lists all agencies, organizations, and individuals that submitted written comments on the Draft EIR during the comment period, and the date of each written comment.

**TABLE 3
LIST OF COMMENTERS**

Agency/Organization/Individual	Letter/Email Dated
Department of Toxic Substances Control	October 10, 2024
Native American Heritage Commission	October 24, 2024
City of Sunnyvale	October 28, 2024
California Department of Fish and Wildlife	November 4, 2024

The Final PEIR includes these comments and Valley Water’s responses to these comments. are provided in Chapter 6, Draft EIR Comments and Responses.

Valley Water submitted the Final PEIR to the commenting agencies on April 8, 2025.

VIII. ADMINISTRATIVE RECORD

The administrative record upon which the Board's Findings are based includes, but is not limited to, the following:

- The Final PEIR;
- The reports and other documents referenced in the Final PEIR;
- The draft Mitigation Monitoring and Reporting Program;
- All reports, studies, memoranda, maps, staff reports, or other planning documents related to the Program prepared by Valley Water or consultants to Valley Water with respect to Valley Water's compliance with the requirements of CEQA and with respect to Valley Water's action on the Program;
- All oral, written, and electronic evidence submitted to the Valley Water prior to the close of Valley Water's hearings on the Program;
- Any documents expressly cited in these Findings, in addition to those cited above; and
- All documents constituting the record pursuant to Public Resources Code Section 21167.6(e).

The administrative record is located at Valley Water Headquarters, 5750 Almaden Expressway, San José, California. The custodian of the administrative record is the Clerk of the Board for Valley Water.

IX. FINDINGS OF FACT ON IMPACTS OF THE PIPELINE MAINTENANCE PROGRAM

Regarding the impacts of the PMP disclosed in the Final PEIR, the Board finds as follows.

IX.A EFFECTS FOUND TO BE LESS THAN SIGNIFICANT

The PEIR concludes that the Proposed Program will result in either no impact or a less than significant impact for the following resource areas. Although findings on less-than-significant impacts are not required by CEQA, the Board nevertheless finds, based on the PEIR and the entire record, that the PEIR's conclusions regarding these specific impacts are correct and supported by substantial evidence.

- Aesthetics (Final PEIR Section 3.12, page 3.12-1): Impacts on scenic vistas, scenic resources, zoning conflicts, or visual character or quality of the site. A detailed description of the proposed PMP's impacts on aesthetics is provided in Final PEIR Section 3.12.4, page 3.12-10.
- Agriculture and Forestry (Final PEIR Section 3.18 page 3.18-1): Conversion of farmland, forest land, or timberland; conflict with existing zoning for agriculture or forest land or with a Williamson Act contract; or other changes in the existing environment that could result in conversion of farmland to a nonagricultural use or conversion of forest land to a non-forest use. A detailed description of the proposed PMP's impacts on agriculture is provided in Final PEIR Section 3.18.4, page 3.18-9.

- Air Quality (Final PEIR Section 3.8, page (3.8-1): Conflict with the implementation of the clean air plan, cumulatively considerable net increase of any criteria air pollutant, expose sensitive receptors to substantial pollutant concentrations, or result in odor emissions. A detailed description of the proposed PMP's impacts on air quality is provided in Final PEIR Section 3.8.5, page 3.8-20.
- Biological resources (Final PEIR Section 3.3, page 3.3-1): Impacts on nonbreeding special-status birds and mammals (Impact BIO-1E), loss or disturbance of serpentine habitats and communities (Impact BIO-2B), wildlife movement and nursery sites (Impact BIO-4), local ordinances protecting biological resources (Impact BIO-5), and conflicts with HCPs, NCCPs, or any other approved conservation plans (Impact BIO-6). A detailed description of the proposed PMP's impacts on these biological resources is provided in Final PEIR Section 3.3, page 3.3-75 (Impact BIO-1E), page 3.3-99 (Impact BIO-2B), page 3.3-110 (Impact BIO-4), page 3.3-112 (Impact BIO-5), and page 3.3-113 (Impact BIO-6).
- Energy (Final PEIR Section 3.10, page 3.10-1): Result in result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with a state or local plan for renewable energy or energy efficiency. A detailed description of the proposed PMP's impacts on energy is provided in Final PEIR Section 3.10.4, page 3.10-9.
- Geology and soils (Final PEIR Section 3.2, page 3.2-1): Result exacerbation of existing or future seismic hazards (Impact GEO-1), soil erosion or loss of topsoil (Impact GEO-2). Impact landslides, lateral spreading, subsidence, liquefaction, or collapse (Impact GEO-3), or expansive soil (Impact GEO-4). A detailed description of the proposed PMP's impacts on geology and soils is provided in Final PEIR Section 3.2.4, page 3.2-24 (Impact GEO-1), page 3.2-26 (Impact GEO-2), and page 3.2-28 (Impact GEO-3 and GEO-4).
- Greenhouse gas (GHG) emissions (Final PEIR Section 3.9, page 3.9-1): Generate GHG emissions that may have a significant impact on the environment; conflict with an applicable GHG reduction plan, policy, or regulation. A detailed description of the proposed PMP's impacts on greenhouse gas emissions is provided in Final PEIR Section 3.9.4, page 3.9-13.
- Hazards and Hazardous materials (Final PEIR Section 3.4, page 3.4-1): Located on a hazardous materials site; transport, use, storage, or disposal of hazardous materials; hazardous emissions or handling of hazardous materials within ¼ mile of an existing or proposed school; located within 2 miles of a public or private airport; impairment of implementation of an adopted emergency response plan or emergency evacuation plan; or exposure of people or structures to increased risk of loss, injury, or death involving wildland fires. A detailed description of the proposed PMP's impacts on hazardous materials is provided in Final PEIR Section 3.4.4, page 3.4-30.
- Hydrology and Water Quality (Final PEIR Section 3.1, page 3.1-1): Violate any applicable surface water quality standards or degrade water quality, decrease groundwater supplies or interfere with groundwater recharge, result in substantial erosion or siltation on or off site, result in flooding on or off-site, or create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, risk release of pollutants due to inundation, conflict or obstruct water quality or groundwater plans. A detailed description of the proposed PMP's impacts on hydrology and water quality is provided in Final PEIR Section 3.1.4, page 3.1-21.
- Land use and Planning (Final PEIR Section 3.15, page 3.15-1): Physically divide an established community or conflict with any existing land use plans, policies, or agency

regulations. A detailed description of the Proposed Project's impacts on land use is provided in Final PEIR Section 3.15.4, page 3.15-5.

- Noise (Final PEIR Section 3.11, page 3.11-1): Excessive noise levels near an airstrip or airport absent of a plan or within 2 miles of a public airport (Impact NOI-3). A detailed description of the Proposed Project's impacts on noise is provided in Final PEIR Section 3.11, page 3.11-41 (Impact NOI-3).
- Public services (Final PEIR Section 3.17, page 3.17-1): Require construction of new or expanded fire protection facilities, police protection facilities, schools, parks, or other public facilities. A detailed description of the Proposed Project's impacts on public services is provided in Final PEIR Section 3.17.4, page 3.17-7.
- Recreation (Final PEIR Section 3.16, page 3.16-1): Increased use of existing neighborhood and regional parks such that substantial physical deterioration of the facility would be accelerated (Impact REC-1). A detailed description of the Proposed Project's impacts on recreation is provided in Final PEIR Section 3.16.4, page 3.16-8 (REC-1).
- Transportation (Final PEIR Section 3.5, page 3.5-1): Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities; generate substantial amounts of traffic; result in an increase in the number of vehicle miles traveled; substantially increase safety hazards; or result in inadequate emergency access. A detailed description of the Proposed Project's impacts on transportation is provided in Final PEIR Section 3.5.4, page 3.5-8.
- Utilities and service systems (Final PEIR Section 3.14, page 3.14-1): Result in the expansion of utilities, have insufficient water supplies, have inadequate wastewater capacity, generate solid waste in excess of state or local standards or of the capacity of local infrastructure, or not comply with solid waste statutes or regulations. A detailed description of the Proposed Project's impacts on utilities and service systems is provided in Final PEIR Section 3.14.4, page 3.14-11.
- Wildfire (Final PEIR Section 3.13, page 3.13-1): Impair any emergency response plans or emergency evaluation plans, exacerbate wildfire risk; require the installation or maintenance of associated infrastructure, or expose people or structures to significant wildfire risks. A detailed description of the Proposed Project's impacts on wildfire is provided in Final EIR Section 3.13.4, page 3.13-13.

IX.B SIGNIFICANT IMPACTS THAT CAN BE MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

IX.B.1 Aesthetics

Impact AES-3: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area (less than significant with mitigation incorporated)

Impact (Final PEIR Section 3.12, page 3.12-12)

Extended nighttime construction may require temporary lighting, which could impact nighttime views by introducing substantial lighting visible from nearby roads or vantage points. Valley Water would apply BMPs and AMMs, as appropriate, to minimize impacts. However, there is a

potential for adverse impacts that could substantially affect some nighttime viewpoints. This would be a **significant** impact.

Mitigation (Final PEIR Section 3.12.4, page 3.12-13)

To reduce the impact of temporary construction lighting on nighttime views, Valley Water would implement MM AES-1, which would require Valley Water or its contractors to limit nighttime construction activities to the extent feasible.

MM AES-1: Low Illumination Nighttime Lighting

Whenever possible, work hours will be limited to 7:00 a.m. to 7:00 p.m. Monday through Saturday. When program activities are required beyond this time frame and require nighttime lighting, lighting will conform to restrictions of the relevant local jurisdiction. Measures such as directing lighting downward and away from residences and traffic, reducing bulb wattage to the minimum required, and using shrouds will be implemented.

Finding

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment. The Board finds that MM AES-1 is feasible and hereby adopts it. With the implementation conforming to local jurisdiction nighttime lighting requirements and strategies to minimize spillover light, impacts to nighttime views would not be substantial and, therefore, would be reduced to **less than significant with mitigation**.

IX.B.2 Biological Resources: Special-Status Species (Impact BIO-1A through BIO-1D, BIO-1F)

Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service

Impact (Final PEIR Section 3.3, page 3.3-36)

Special-status species, if present, could be adversely affected by several of the PMP's activities. Valley Water would apply BMPs, AMMs, and VHP conditions, as appropriate, to minimize impacts. However, there is a potential for disturbance and other adverse impacts that could substantially affect some special-status plant, invertebrate, fish and essential fish habitat, amphibians and reptiles, nesting common and special status birds, and potentially breeding special-status mammals and breeding bat species. This would be a **significant** impact.

Mitigation (Final PEIR Section 3.3.4, pages 3.3-42, 3.3-51, and 3.3-63)

To reduce impacts of the PMP activities on an identified candidate, sensitive, listed, or special-status species, Valley Water will implement MM BIO-1 through MM BIO-4.

If program activities in a given work area are covered under the forthcoming VHP amendment or the forthcoming San Benito County Conservation Plan (SBCCP), and the plant species to be impacted are also covered, MM BIO-3 and MM BIO-4 below would not be needed to reduce impacts to less than significant levels under CEQA. Rather, the program will adhere to applicable habitat plan conditions to reduce impacts. MM BIO-1 (pre-activity surveys) and MM BIO-2 (avoidance buffers) would still be implemented to determine which plants may be present

in the work area and would be impacted by the program, and to avoid impacts on these species where feasible.

MITIGATION FOR IMPACT BIO-1A: SPECIAL-STATUS PLANTS

Mitigation Measure BIO-1: Pre-Activity Surveys for Special-Status Plants

This measure will be implemented regardless of habitat plan coverage of program activities.

If a qualified biologist determines that known locations of big-scale balsamroot, pink creamsacs, Hospital Canyon larkspur, phlox-leaf serpentine bedstraw, Congdon's tarplant, spiny-sealed button-celery, prostrate vernal pool navarretia, saline clover, Hoover's button-celery, San Joaquin spearscale, and Hall's bush-mallow (all of which are California Rare Plant Ranks [CRPR] 1B species), as well as any additional CRPR 1–4 species that may be detected in the program area in the future and for which the Habitat Agency's reserve system and/or SBCCP reserve system do not adequately offset impacts, or suitable habitat for such plants, is potentially present within the work areas, protocol-level surveys within areas identified as suitable habitat will be conducted by a qualified biologist within two (2) years prior to commencement of work. Surveys will be conducted during the appropriate time(s) of year (i.e., the target species' blooming period) to adequately identify the special-status plant(s) that could occur on the site of program activities.

Mitigation Measure BIO-2: Avoidance Buffers

This measure will be implemented for any program activity whose impacts on a special-status plant occurrence are not covered by the VHP or SBCCP.

To the extent feasible, and in consultation with a qualified biologist, Valley Water will design and construct all proposed activities to avoid all impacts on populations of big-scale balsamroot, pink creamsacs, Hospital Canyon larkspur, phlox-leaf serpentine bedstraw, Congdon's tarplant, spiny-sealed button-celery, prostrate vernal pool navarretia, saline clover, Hoover's button-celery, and San Joaquin spearscale, as well as Hall's bush-mallow outside of the VHP permit area, and any other CRPR 1–4 plant species that may be detected in the future outside the VHP and SBCCP permit areas (once those boundaries are established) or for which the Habitat Agency's reserve system or SBCCP reserve system does not support sufficient populations to offset program impacts. Avoided special-status plant populations will be protected by establishing and observing a buffer between plant populations and the impact area; the dimensions of the buffer will be determined by a qualified biologist based on the work to be performed and how the activity might impact those plants. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided will be marked in the field (e.g., with flagging, fencing, paint, or other means appropriate for the site in question). This marking will be maintained intact and in good condition throughout work activities, and all maintenance personnel will be trained on the locations of these plants, how their locations and the surrounding buffer are marked, and how impacts on these plants are to be avoided. An appropriate buffer may also consist of timing of work activities to occur during plant dormancy and to avoid critical life history stages (such as flowering and fruiting).

If complete avoidance is not feasible and special-status plants will be impacted by the activity, MM BIO-3 shall be implemented. If more than 10 percent of a population (by occupied area or individuals) of the species listed above will be impacted by the activity as determined by a qualified plant ecologist, MM BIO-4 shall also be implemented.

Mitigation Measure BIO-3: Seed Collection and Storage

This measure will be implemented for any program activity whose impacts on a special-status plant occurrence are not covered by the VHP or SBCCP.

If any individual big-scale balsamroot, pink creamsacs, Hospital Canyon larkspur, phlox-leaf serpentine bedstraw, Congdon's tarplant, spiny-sepaed button-celery, prostrate vernal pool navarretia, saline clover, Hoover's button-celery, San Joaquin spearscale, and Hall's bush-mallow (all of which are CRPR 1B species), or additional CRPR 1–4 species that may be detected in the program area in the future and for which the Habitat Agency's reserve system and/or SBCCP reserve system do not adequately offset impacts are impacted by program activities, regardless of the extent of the impact, Valley Water will collect and bank seed with an accredited institution to facilitate potential future restoration opportunities and conserve the population's genetic diversity.

Mitigation Measure BIO-4: Create or Enhance and Preserve Mitigation Populations

This measure will be implemented for any program activity whose impacts on a special-status plant occurrence are not covered by the VHP or SBCCP.

Compensatory mitigation will be provided if more than 10 percent of the population of big-scale balsamroot, pink creamsacs, Hospital Canyon larkspur, phlox-leaf serpentine bedstraw, Congdon's tarplant, spiny-sepaed button-celery, prostrate vernal pool navarretia, saline clover, Hoover's button-celery, or San Joaquin spearscale, or Hall's bush-mallow outside of the VHP permit area or SBCCP permit area (once those boundaries are established), or other CRPR 1–4 species that may be detected in the future outside the VHP permit area or SBCCP permit area (once those boundaries are established) or for which the Habitat Agency's reserve system or SBCCP reserve system does not support sufficient populations to offset program impacts, would be impacted. Compensatory mitigation will be provided by purchasing credits from an approved conservation bank at a 1:1 (mitigation: impact) ratio, or via the creation, enhancement, or preservation of occupied habitat for the impacted species. Creation of habitat and establishment of a new population would be provided at a minimum 1.5:1 (mitigation: impact) ratio; preservation and enhancement of an existing population would be provided at a minimum 1:1 (mitigation: impact) ratio. If mitigation occurs through creation of a new population, seed from the population to be impacted may be harvested (or seed may be obtained from another source at an appropriate location, as determined by a qualified biologist) and used to establish an entirely new population in suitable habitat.

If compensatory mitigation is required pursuant to the paragraph above, a habitat mitigation and monitoring plan (HMMP) will be developed by qualified plant or restoration ecologists and implemented for the mitigation lands for a minimum of 10 years. That plan will include, at a minimum, the following information:

- a summary of impacts to the special-status plant species in question, including impacts to its habitat, and the proposed mitigation;
- a description of measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat, or other appropriate methods such as grazing, prescribed burns, planting native species, or mowing) the mitigation site for the species;
- a description of measures to transplant individual plants or seeds from the impact area to the mitigation site, if appropriate (which will be determined by a qualified plant or restoration ecologist, who will take into account factors such as genetics and the spread of pathogens, such as *Phytophthora*);

- proposed management activities to maintain high-quality habitat conditions for the species;
- a description of habitat and species monitoring measures on the mitigation site. At a minimum, performance criteria will include demonstration that any plant population fluctuations over the monitoring period of a minimum of 10 years do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (i.e., that are not the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management).
- contingency measures for mitigation elements that do not meet performance criteria.

MITIGATION FOR IMPACT BIO-1B: SPECIAL-STATUS INVERTEBRATES

Mitigation Measure BIO-5: Pre-Activity Survey for Crotch's Bumble Bees

This measure will be implemented as long as Crotch's bumble bee is considered a CESA candidate species or is listed under CESA, and if impacts of a program activity on the species are not explicitly covered (with Crotch's bumble bee considered a Plan-covered species) under the VHP or SBCCP.

If suitable Crotch's bumble bee habitat is present, work will occur during the active colony period (April through August), and the activity could potentially impact Crotch's bumble bee or its habitat (as determined by a qualified biologist), focused pre-activity surveys for Crotch's bumble bees will be conducted within areas identified as suitable habitat by a biologist who is qualified to identify Crotch's bumble bees and other local bumble bee species prior to commencement of work. Surveys shall not occur more than 14 days prior to these ground-disturbing and/or vegetation removal activities. The survey shall occur at least two hours after sunrise (>60F and <90F with no rain and no sustained wind of 10 mph or greater) or two hours before sunset and the survey area will include the work site boundaries and if accessible, a surrounding 50-foot buffer area. The survey duration will be appropriate to the size of the project site and buffer area based on the metric of approximately one person-hour of searching per three acres of suitable habitat. Surveys shall be visual encounters only, with identification aided by photographs. At a minimum, pre-construction survey methods will include the following:

- Search areas with flowering plants for foraging Crotch's bumble bees. Observed foraging activity may indicate a nest is nearby, and therefore, the survey duration should be increased when foraging Crotch's bumble bees are present.
- Visually look for Crotch's bumble bee nest entrances. Observe burrows, any other underground cavities, logs, or other possible nesting habitat including manmade objects.
- Look and listen for concentrated bumble bee activity. Although different bumble bee species may have different habitat affinities and may favor the flowers of different plant species, they are generalists and Crotch's bumble bee frequently occur in the same areas, and often use the same flowering plants, as other bumble bee species.
- If bumble bees are observed, obtain photos of the bees for documentation and to determine if the bees are Crotch's bumble bee or are not Crotch's bumble bee.
- Photographs will be taken with an appropriate camera (e.g., a DSLR camera with a macro or telephoto lens with image stabilization or other cameras equipped with a view finder, continuous shooting mode, and macro or telephoto lens with image stabilization) from multiple angles to capture key features to aid identification, if possible, and be in focus.

If a Crotch's bumble bee nest or individual is detected within the work area, MM BIO-6 will be implemented.

Mitigation Measure BIO-6: Crotch's Bumble Bee Monitoring

This measure will be implemented as long as Crotch's bumble bee is considered a CESA candidate species or is listed under CESA, and if impacts of a program activity on the species are not explicitly covered (with Crotch's bumble bee considered a Plan-covered species) under the VHP or SBCCP.

If a Crotch's bumble bee nest is detected, a 50-foot no-disturbance buffer would be implemented around the nest unless a qualified biologist determines that a greater buffer distance is warranted or a smaller buffer distance would be appropriate (e.g., if a nest is found alongside an existing road where no excavation or other ground disturbing activities would occur). The buffer would be installed with a qualified biologist present to assure the buffer is clearly demarcated in the field with appropriate materials and signage. A biological monitor would monitor the nest long enough to determine the buffer was effective in protecting the nest (i.e., the nest is not getting disturbed, and the workers are aware of the prohibited work area).

If a Crotch's bumble bee nest is present, the no-disturbance buffer will not be removed until a qualified biologist determines that the nest has senesced. To make this determination, a qualified biologist will monitor the nest multiple times over a 3-day period following observations of males and/or gynes, which indicate potential nest senescence. Monitoring will consist of observing the entrance(s) to the nest for at least an hour each time. If no Crotch's bumble bees are observed entering or exiting the nest during these monitoring events the nest will be determined inactive by the qualified biologist and the removal of the no-disturbance buffer can proceed.

If Crotch's bumble bee is detected (regardless if a nest is present or not) a biological monitor will be onsite during any ground disturbance, dewatering, and vegetation removal activities that occur when Crotch's bumble bee are present within the activity footprint. A 25-foot no-disturbance buffer will be implemented around Crotch's bumble bee individuals within the area. Biological monitoring will continue until the Crotch's bumble bee leaves the area on its own.

Because bumble bees are generalists, the removal of floral resources where Crotch's bumble bee are present could impact the health of the colony by limiting their food resources. If Crotch's bumble bees are present and floral resources that are in bloom must be removed, and no floral resources of similar quality are present nearby, the removal of those flowers will occur in a patchy manner (as directed by a qualified biologist) so that suitable flowers for foraging Crotch's bumble bee remain present.

If Crotch's bumble bees are observed to be within harm's way after construction commences, or a suspected individual is killed or injured, construction will be halted and Valley Water will immediately contact the CDFW for guidance.

Mitigation Measure BIO-7: Milkweed Surveys and Avoidance

This measure will be implemented for program activities whose impacts on the monarch butterfly are not explicitly covered (with monarch butterfly considered a Plan-covered species) under the VHP or SBCCP.

Prior to the start of maintenance activities occurring March through October involving ground disturbance or vegetation removal in areas providing potential habitat for milkweed plants, a qualified biologist will survey the footprint of all impact areas, plus a 25-foot surrounding buffer, for milkweed plants. The 25-foot buffer will be surveyed in case any minor modifications to the impact footprint become necessary, rather than implying that milkweed plants must be buffered by 25 feet.

Ideally, the survey would be conducted from early April, when the plants would be identifiable from their vegetative structures (i.e., before flowering), through October, when the above-ground structures would be senescing but the plants would be identifiable by their seed pods and other characters. Surveys may be conducted in March only if the qualified biologist is able to demonstrate (e.g., based on examination of known, nearby reference occurrences) that milkweed was detectable and identifiable at the time. During the survey, the biologist would walk transects throughout all suitable habitat looking for milkweed plants. The survey transects will be spaced close enough to provide 100 percent visual coverage of all suitable habitat.

Any milkweed plants detected during the survey will be marked with flagging, stakes, or other materials to denote their location, and/or their GPS coordinates will be recorded. To the extent feasible, Valley Water will avoid direct impacts to milkweed plants and minimize indirect impacts by retaining an appropriate buffer (to be determined by the qualified biologist) around plants that are to be avoided.

If milkweed plants cannot be avoided during the period from March through October, MM BIO-8 will be implemented.

Mitigation Measure BIO-8: Pre-Activity Survey for Monarch Butterflies

This measure will be implemented for program activities whose impacts on the monarch butterfly are not explicitly covered (with monarch butterfly considered a Plan-covered species) under the VHP or SBCCP, and if milkweed plants cannot be avoided during the period from March through October (as determined through implementation of MM BIO-7).

If milkweed plants cannot be avoid during the period from March to October, a qualified biologist will survey milkweed plants for monarch butterfly eggs, larvae, or pupae to determine whether impacts to those plants will result in direct loss of monarchs. The survey will occur within three weeks, but no less than one week (to provide time for USFWS coordination if necessary), prior to the start of work in that area. If the plants do not support monarch eggs, larvae, or pupae, the qualified biologist will remove those plants immediately (during the survey) to prevent monarchs from laying eggs between the time of the survey and initiation of impacts.

If any eggs, larvae, or pupae are detected within the survey area, a photo will be taken of a representative sample of each life stage for documentation purposes. If impacts to the plants supporting those individuals cannot be avoided or delayed until the emergence of those individual butterflies as adults, and the monarch butterfly becomes a listed species under FESA but is not covered under the VHP at the time the impact occurs, Valley Water will coordinate with the USFWS regarding recommendations. For example, larvae could be relocated to milkweeds outside the impact area, if those milkweeds are not already occupied by monarch eggs or larvae. Alternatively, raising monarch butterflies indoors has become popular even with the general public, and eggs, larvae, or pupae that cannot be avoided by program activities could potentially be raised to maturity in captivity (with USFWS approval).

MITIGATION FOR IMPACT BIO-1C: SPECIAL-STATUS FISH AND ESSENTIAL FISH HABITAT

Mitigation Measure BIO-9: Temperature Change Limitations

During pipeline dewatering, a slow release is mandatory to ensure receiving waters do not experience a temperature change greater than 2 degrees Celsius in either direction in salmonid streams or 4 degrees Celsius in either direction in non-salmonid streams.

Mitigation Measure BIO-10: Relocate Native Aquatic Vertebrates from Dewatered Channels

If fish or native aquatic vertebrates are present when cofferdams and water bypass structures are installed, a fish and native aquatic vertebrate relocation plan shall be implemented to ensure that fish and native aquatic vertebrates are not stranded. Relocation efforts will occur as follows:

- Where water is to be diverted, prior to the start of work or during the installation of water diversion structures, native aquatic vertebrates shall be captured by qualified biologists in the work area and transferred to another reach as determined by a qualified biologist.
- Aquatic invertebrates will not be transferred (other than incidental catches) because of their anticipated abundance and colonization after completion of the repair work.
- If early life stages of special-status fish and/or amphibian species (in the absence of VHP and/or SBCCP take coverage) (i.e., eggs, fry, or larvae) are present and those life stages cannot be successfully relocated without harming them (e.g., steelhead eggs or fry), then the channel dewatering work will not occur until those early life stages are no longer present in the work area.
- Relocations of special-status fish and/or amphibian species (in the absence of VHP and/or SBCCP take coverage) will be conducted by a qualified biologist with appropriate permits and/or in consultation with the CDFW, USFWS, and/or NMFS, as appropriate.

Mitigation Measure BIO-11: Temporary Block Nets for Pipeline Dewatering

Temporary block nets, with openings less than or equal to 1/8 inch (3.125 millimeters) in diameter (California Department of Fish and Game 2003) shall be applied to any primary or secondary or side channel that could receive pipeline flows, causing attractant flows that will subside once pipeline dewatering is complete. Block nets will be periodically monitored for debris and removed after program activity completion and stabilization of water levels.

Mitigation Measure BIO-12: Pump Screening for Pipeline Dewatering

During pipeline dewatering, mesh screens less than or equal to 1/8 inch (3.125 millimeters) in diameter (California Department of Fish and Game 2003), will be placed over the release openings of gravity drain gates and on the suction and release piping of any submersible pumps used for pipeline releases to minimize release of nonnative species for any release of Delta water or the inadvertent entry of special-status fish into pumps and pipelines. The screens must be examined throughout the draining process to remove nonnative species and to prevent debris clogging.

Mitigation Measure BIO-13: Pump Screening for Creek Dewatering

When water is being pumped in a stream to dewater a section of creek, if the qualified biologist determines that special-status fish fry could potentially be present, pump intake screens will be less than or equal to 3/32 inch (2.39 millimeters) in diameter; otherwise, screens will be 5/32 inch (4.0 millimeters) in diameter (California Department of Fish and Game 2002). Screen designs will be approved of by a qualified biologist, to ensure that appropriate material is used so as to not injure fish.

Mitigation Measure BIO-14: Pre-Activity Survey for Special-Status Fish for Pipeline Dewatering

Work areas located in suitable breeding habitat where early life stages of special-status fish (i.e., eggs or fry) could be present, as determined by a qualified biologist, will first be surveyed by a qualified biologist to ensure that no early life stages are present within 500 feet upstream and downstream of the proposed structure (within the stream channel). If early life stages of special-status fish are found and could be impacted by pipeline dewatering, then the release point would either not be used, be redirected further downstream (such as with a hose), or release will not occur until early life stages that could be impacted by the dewatering are no longer present.

Mitigation Measure BIO-15: Alternative Water Source

If the Valley Water shuts down a pipeline that (at the time of shutdown) is functioning to augment stream flows during a drought year or under other conditions when pipeline water is necessary to maintain instream flows, then an alternative source of water will be identified before shutdown commences. Alternative sources of water would come from the following locations, in order of priority:

- (1) Other local water sources, such as from an upstream reservoir
- (2) Other raw water sources, such as another pipeline
- (3) Well water from a retailer
- (4) Dechlorinated municipal water piped to the site from the nearest hydrant or other repository

MITIGATION FOR IMPACT BIO-1D: SPECIAL-STATUS AMPHIBIANS AND REPTILES

Mitigation Measure BIO-16: Protection of California Tiger Salamander and California Red-legged Frog

For program activities whose impacts on the California tiger salamander and California red-legged frog are not explicitly covered under the VHP or SBCCP, program activities will implement the following measures to protect the California tiger salamander and California red-legged frog in areas where these species potentially occur and for activities that could impact these species if they are present (as determined by the qualified biologist):

Pre-Activity Survey: The work area will be surveyed by a qualified biologist within 48 hours prior to the start of work.

Avoidance: Valley Water will avoid program activities whenever feasible in areas with suitable breeding and nonbreeding habitat. If program activities will occur within suitable habitat, if feasible and determined warranted by a qualified biologist, impacts will be minimized as follows:

1) conduct program work during times the species is least likely to be adversely affected, 2) use fencing to keep the species away from the construction zone, and 3) any burrows located within the work area will be flagged by the qualified biologist for avoidance.

Access Routes: For construction projects, all off-road access routes to vaults or other program activity areas will be surveyed and if needed delineated by a qualified biologist prior to use. Routes located in such areas will not be more than 15 feet wide. Personnel will be required to adhere to marked paths, and no travel outside of marked access routes will be allowed.

Avoid Animal Entry and Entrapment: All pipes, hoses, or similar structures less than 12 inches diameter will be closed or covered to prevent animal entry. In addition, all construction pipes, culverts, or similar structures, greater than 2 inches in 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. If inspection indicates presence of California tiger salamander or California red-legged inside stored materials or equipment, work on those materials will cease until a qualified biologist determines the appropriate course of action.

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: 1) Hole to be securely covered with plywood, or similar materials, and its perimeter will be covered with dirt so there are no gaps, at the close of each working day; or 2) 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 3) 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.

Pipeline Release: If a pipeline water release is scheduled to occur from January through August within potential breeding habitat (as determined by a qualified biologist), a survey for the species will be performed by a qualified biologist within 1 week prior to release. If eggs or larvae are found within 500 feet upstream or downstream of the release point and could be impacted by pipeline dewatering, then the release point would either not be used, be redirected further downstream (such as with a hose), or release will not occur until early life stages that could be impacted by the dewatering are no longer present.

Procedure if Individuals are Encountered: If California tiger salamander or California red-legged frog, or an individual that may be these species, are found, a qualified biologist will be contacted immediately and any work that may result in the direct injury or mortality or indirect disturbance of the individual will immediately cease. If a California tiger salamander or California red-legged frog is determined to be present, an appropriately sized buffer (the size of which will be determined by the qualified biologist) will be established around the location of the individual(s) and work may proceed outside of the buffer zone (with a qualified biological monitor present, as needed and determined by the qualified biologist). No work will occur within the buffer zone. Work within the buffer zone will be rescheduled. The individual(s) will be allowed to leave under its (their) own volition. However, if, in the opinion of the qualified biologist, capture and removal of the individual(s) to a safe place outside of the work area is necessary to prevent adverse effects, the individual(s) will be captured and relocated by a qualified biologist with appropriate permits and/or in consultation with the CDFW and/or USFWS, as appropriate.

Mitigation Measure BIO-17: Protection of Northwestern Pond Turtles

If impacts of a program activity on the northwestern pond turtle are not explicitly covered by the VHP and/or SBCCP, and if program activities will occur in habitats where northwestern pond turtles potentially occur as determined by a qualified biologist, a qualified biologist will conduct a pre-activity survey for the northwestern pond turtle within 48 hours prior to start of work. If a pond turtle, or a turtle that could possibly be a northwestern pond turtle is found, a qualified biologist will be contacted immediately and any work that may result in the direct injury or mortality or indirect disturbance of the individual will immediately cease. If a pond turtle is determined to be present, an appropriately sized buffer (the size of which will be determined by a qualified biologist) will be established around the location of the individual(s) and work may proceed outside of the buffer zone (with a qualified biological monitor present, as needed and determined by the qualified biologist). No work will occur within the buffer zone. Work within the buffer zone will be rescheduled. The individual(s) will be allowed to leave under its(their) own volition. However, if, in the opinion of the qualified biologist, capture and removal of the individual(s) to a safe place outside of the work area is necessary to prevent adverse effects, the individual will be captured and relocated by a qualified biologist with appropriate permits and/or in consultation with the CDFW and/or USFWS, as appropriate.

If an active pond turtle nest is detected within the activity area, a buffer zone, the size of which will be determined by a qualified biologist, around the nest will be established and maintained. The buffer zone will remain in place until the young have left the nest, as determined by a qualified biologist. Should a pond turtle nest be unearthed during excavation, the CDFW and USFWS will be contacted immediately for guidance.

Mitigation Measure BIO-18: Protection of Coast Horned Lizards

If impacts of a program activity on the coast horned lizard are not explicitly covered by the SBCCP, and if program activities will occur in habitats where coast horned lizards potentially occur as determined by a qualified biologist, a qualified biologist will conduct a pre-activity survey for the coast horned lizard within 48 hours prior to start of work. If a coast horned lizard, or a lizard that could possibly be a coast horned lizard is found, a qualified biologist will be contacted immediately and any work that may result in the direct injury or mortality or indirect disturbance of the individual will immediately cease. If a coast horned lizard is determined to be present, a buffer (the size of which will be determined by a qualified biologist) will be established around the location of the individual(s) and work may proceed outside of the buffer zone (with a qualified biological monitor present, as needed and determined by the qualified biologist). No work will occur within the buffer zone. Work within the buffer zone will be rescheduled. The individual(s) will be allowed to leave under its (their) own volition. However, if, in the opinion of the qualified biologist, capture and removal of the individual(s) to a safe place outside of the work area is necessary to prevent adverse effects, the individual will be captured and relocated by a qualified biologist with appropriate permits and/or in consultation with the CDFW.

Mitigation Measure BIO-19: Protection of Wetland

A qualified biologist will determine if wetlands are potentially present within the program activity work area, or close enough to the work area to be impacted by program activities. If wetlands may be present, a qualified biologist will survey the work area and immediately adjacent areas for wetlands within 30 days of the start of work activities.

Temporary disturbance to and permanent loss of wetland and aquatic habitats will be avoided to the maximum extent feasible. All temporary staging areas and access roads will be located away from wetland habitat to the extent practicable, and wetland and aquatic habitats abutting

development areas will be clearly demarcated to avoid inadvertent disturbance during work activities.

If impacts to wetlands are unavoidable, Valley Water will notify the appropriate regulatory agencies and obtain applicable permits for any wetland impacts.

Mitigation Measure BIO-20: Special-Status Amphibian and Reptile Compensatory Mitigation

If impacts of a program activity on suitable habitat for the California tiger salamander, California red-legged frog, or northwestern pond turtle are not explicitly covered by the VHP or SBCCP, all temporary impact areas will be returned to pre-work conditions as feasible. Temporary and permanent impact areas will be quantified, and if necessary, compensatory mitigation will be provided.

If feasible, compensation for these effects will be provided via the payment of VHP impact fees through the Habitat Agency's Voluntary Fee Payments Policy. The VHP will require the payment of fees in accordance with the types and acreage of all land cover types impacted by the activity (including areas within and outside of waters of the U.S./state, and when no impacts on individual California tiger salamanders, California red-legged frogs, and/or northwestern pond turtles have occurred).

Alternatively, when necessary, Valley Water proposes to compensate for these impacts by purchasing credits from an approved conservation bank, providing mitigation at a 1:1 (mitigation: impact) ratio on an acreage basis for both direct permanent and temporary impacts.

If the above options are not available, Valley Water would provide mitigation through the creation, enhancement, or preservation of habitat for the impacted species. Creation of new habitat or enhancement of low-quality habitat would be provided at a minimum 1.5:1 (mitigation: impact) ratio; preservation and management of existing occupied habitat would be provided at a minimum 1:1 (mitigation: impact) ratio. Valley Water will develop an HMMP for the selected option, which will be provided to the CDFW and/or USFWS for review, as applicable for state and/or federally listed species. That plan will include, at a minimum, the following:

- a description of measures to be undertaken if necessary to enhance (e.g., through focused management) the mitigation site for listed amphibians and/or reptiles;
- proposed management activities to maintain high-quality habitat for listed amphibians and/or reptiles; and
- a description of species monitoring measures on the mitigation site, including performance indicators and success criteria (including maintaining or increasing the abundance of upland refugia for listed amphibians and maintaining or improving the quality of aquatic habitat for the affected species)

It is possible that this mitigation measure may be refined during the Section 7 consultation process with the USFWS (e.g., in the Biological Opinion covering program effects on the federally listed species) or the Section 2081(b) consultation process with the CDFW (e.g., in an Incidental Take Permit), in which case the refinements required by these agencies would be implemented.

MITIGATION FOR IMPACT BIO-1F: NESTING COMMON AND SPECIAL-STATUS BIRDS

Mitigation Measure BIO-21: Compensatory Mitigation for Least Bell's Vireo, Burrowing Owl, and Tricolored Blackbird

If impacts of a program activity on breeding habitat for the least Bell's vireo, burrowing owl, or tricolored blackbird that has been occupied within the three (3) years prior to implementation of a program activity, as determined by a qualified biologist based on database searches and available survey data, are not explicitly covered by the VHP or SBCCP, and habitat quality will not be returned to pre-activity conditions or better within one (1) year following the activity, permanent impact areas will be quantified, and if necessary, compensatory mitigation will be provided.

If feasible (e.g., based on the work location and whether the Habitat Agency can accommodate the mitigation), compensation for these effects will be provided via the payment of VHP impact fees through the Habitat Agency's Voluntary Fee Payments Policy. The VHP will require the payment of fees in accordance with the types and acreage of all land cover types impacted by the activity (including areas within and outside of waters of the U.S./state, and when no impacts on individual least Bell's vireos, burrowing owls, and/or tricolored blackbirds have occurred). Alternatively, when necessary (i.e., if it is not possible to mitigate for impacts via the payment of VHP impact fees), Valley Water proposes to compensate for these impacts by purchasing credits from an approved conservation bank.

If the above options are not available, Valley Water would provide mitigation through the following:

- Creation, enhancement, and/or preservation of habitat for the impacted species. Creation of new habitat or enhancement of low-quality habitat would be provided at a minimum 1.5:1 (mitigation: impact) ratio, and preservation and management of existing occupied habitat would be provided at a minimum 1:1 (mitigation: impact) ratio. Valley Water will develop an HMMP for the selected option. That plan will include, at a minimum, the following: a description of measures to be undertaken to enhance (e.g., through focused management or other appropriate means) the mitigation site for nesting least Bell's vireos, burrowing owls, and/or tricolored blackbirds;
- proposed management activities, such as riparian and wetland habitat enhancement, artificial burrows, measures targeted at sustaining populations of burrowing mammals, or other measures to maintain high-quality habitat for the affected species; and a description of species monitoring measures on the mitigation site, including performance indicators and success criteria (including maintaining or improvement the quality of habitat for the affected species)

The HMMP will be provided to the CDFW and/or USFWS for review, as applicable for state and/or federally protected species. While the minimum requirements for the HMMP listed above will be met, and will be sufficient to reduce impacts under CEQA, it is possible that this mitigation measure may be refined with supplemental and/or equivalent requirements during the Section 7 consultation process with the USFWS (e.g., in the Biological Opinion covering program effects on the federally listed species) or the Section 2081 consultation process with the CDFW (e.g., in an Incidental Take Permit), in which case the refinements required by these agencies would be implemented.

MITIGATION FOR IMPACT BIO-1G: POTENTIALLY BREEDING SPECIAL-STATUS MAMMALS AND BREEDING BATS

Mitigation Measure BIO-22: Protection of San Joaquin Kit Foxes

In the absence of VHP and/or SBCCP take coverage, program activities will implement the following measures to protect San Joaquin kit foxes in areas where this species potentially occurs for activities that could potentially impact the San Joaquin kit fox (as determined by the qualified biologist):

- Within 14 days prior to the start of work activities, a qualified biologist will conduct a pre-activity survey for the San Joaquin kit fox, kit fox dens, and/or sign of kit fox. If a natal/pupping den is discovered within 200 feet of the work area, the USFWS and CDFW shall be immediately notified. Disturbance to all active San Joaquin kit fox dens shall be avoided.
- Valley Water will establish exclusion zones around the kit fox dens, if determined to be present. The configuration of the exclusion should have a radius measured outward from the entrance or cluster of entrances. The following radii are minima to be applied:
 - Potential den: 50 feet
 - Known den: 100 feet
 - Natal/pupping den: USFWS and CDFW must be contacted (occupied and unoccupied)
 - Atypical den: 50 feet.
- If take of the San Joaquin kit fox will occur, take authorization from the USFWS and CDFW will be necessary.
- Before any heavy equipment that has been stored overnight is moved, a qualified biologist or an individual trained by the qualified biologist to look for kit foxes shall inspect the area underneath and around the equipment to ensure that no San Joaquin kit foxes are present and at risk of being harmed by moving equipment.
- A qualified biologist will be on-site or on-call during all activities that could result in take of the San Joaquin kit fox. The biologist will have oversight over implementation of all components of MM BIO-22, and if any of the requirements associated with these measures are not being fulfilled, they will have the authority to stop program activities.
- If any San Joaquin kit foxes are observed during the pre-activity survey or during the course of program activities, the USFWS and CDFW will be contacted for guidance.
- If work will occur off-road/in natural areas, the limits of the work area, access route(s), and staging area(s) will be flagged, if not already marked by other fencing, and all activities will be confined within the marked area.
- Nighttime work will be avoided to the maximum extent feasible. If nighttime work is absolutely necessary, it will occur with a qualified biologist present.
- Vehicles using unpaved access roads will observe a 15-mile-per-hour speed limit.
- No pets of any kind will be allowed in work areas.
- Prior to the start of work each morning, the qualified biologist, or an individual trained by the qualified biologist to look for kit foxes, will inspect all parked vehicles and equipment, as well as stored equipment such as pipes, for kit foxes.
- To prevent the inadvertent entrapment of San Joaquin kit foxes, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps (with no greater than a 3:1 slope) constructed of earthen fill or wooden planks. In addition, all pipes, culverts, or similar structures within a diameter of 3–12 inches that

are stored on-site overnight will be thoroughly inspected for San Joaquin kit foxes by a qualified biologist, or an individual trained by the qualified biologist to look for kit foxes, before they are moved, buried, or capped.

Mitigation Measure BIO-23: Protection of San Francisco Dusky-Footed Woodrats

In areas where the San Francisco dusky-footed woodrat potentially occurs for activities that could potentially impact woodrats (as determined by a qualified biologist), a qualified biologist will conduct a pre-activity survey for San Francisco dusky-footed woodrats when work will occur within potentially suitable habitat. The survey will be conducted within 14 days prior to the start of work in areas where the species may occur. If woodrats are present, the biologist will determine and flag an appropriate no-disturbance buffer around each nest for avoidance purposes. Valley Water will minimize impacts to nests by avoiding the direct destruction or modification of the nests to the extent feasible, as determined by work personnel in consultation with a qualified biologist.

If one or more woodrat nests are determined to be present and physical disturbance or destruction of the nest(s) cannot be avoided, then the woodrats shall be evicted from their nests and the nest material relocated outside of the disturbance area, prior to onset of activities that would disturb the nest. First, an alternate location for the nest material shall be chosen by a qualified biologist based on the following criteria: 1) proximity to current nest location; 2) safe buffer distance from planned work; 3) availability of food resources; and 4) availability of cover. An alternate nest structure will then be built at the chosen location. The structure will be made up of small logs (e.g., available materials 2 inches in diameter or greater) stacked to provide a foundation on which the woodrats can add nest material. Subsequently, during the evening hours (i.e., within 2 hours prior to sunset), a qualified biologist will slowly dismantle the existing woodrat nest to allow any woodrats to flee and seek cover. All sticks from the nest will be collected and spread over the alternate structure. If young woodrats that are still dependent on their mother are discovered, relocation efforts will cease for the evening and the nest will be checked the following evening. If it is found that adults have relocated their dependent young, relocation activities will resume. If young remain in the nest after multiple nights of checking, the CDFW will be contacted for guidance and Valley Water will implement CDFW's guidance to minimize impacts on young woodrats.

Mitigation Measure BIO-24. Protection of Roosting Bats

Pre-Activity Survey. If program activities will occur within or immediately adjacent to suitable roosting habitat for pallid bats or common species of bats for activities that could potentially impact these species (as determined by a qualified biologist), a qualified biologist will conduct a pre-activity survey to identify habitat features suitable for roosting bats within 14 days prior to the start of work activities. If desired, a preliminary survey may be also performed farther in advance (e.g., during the maternity season of a prior year) to assess whether bats are using a particular location, ensure that any necessary exclusion of bats from roosts can be scheduled prior to the work, and confirm the presence or absence of a maternity colony. If suitable habitat is present and thorough inspection of potential roost locations during the daytime is not feasible, a dusk emergence survey will be performed when bats, if present, can be observed flying out of a potential roost. If a colony of pallid bats of any size, at least 10 big brown bats, or more than 20 bats of other common species is present, the qualified biologist shall leave an acoustic detector at the roost location during the maternity season (defined as April 1 to August 31) for one to several nights, as needed, to determine if a maternity colony is present. If the pre-activity

survey occurs outside the maternity season and the status of the roost (i.e., as a maternity or non-maternity roost) is unknown, it will be assumed to be a maternity colony.

If roosting bats, or suitable roosting habitat for bats, are not detected during the pre-activity survey, no further measures are required. If high-quality suitable habitat is present and slated to be removed by the activity, and bats are not detected during the initial survey, the biologist shall conduct a follow-up survey (either a daytime survey or a dusk emergence survey, as appropriate and as determined by the qualified biologist) within 48 hours prior to the removal of the habitat. If roosting bats are absent, no additional measures are required.

If roosting bats are present within or adjacent to the work location, the biologist will determine an appropriate no-disturbance buffer to protect the active roost. The size of the no-disturbance buffer will be determined by the qualified biologist based on the nature of the activity, the vulnerability of the roost to disturbance, and the time of year; typical buffers are provided in Table 3.3-6 [of the Final PEIR], Typical No-Disturbance Buffers Around Active Bat Roosts. (H. T. Harvey & Associates 2019b). Buffers may need to be larger during the maternity season (defined as April 1 to August 31), when bats may be more sensitive to disturbance. The biologist will determine whether monitoring to determine if the bats are disturbed by the activity is feasible, and determine if monitoring is appropriate. If monitoring is performed, the biologist will have authority to stop work if program activities disturb the roosting bats. If the bats are observed exhibiting behaviors indicating they are likely to abandon an active day roost or maternity roost, the biologist will determine if the no-disturbance buffer needs to be increased.

TABLE 4
TYPICAL NO-DISTURBANCE BUFFERS AROUND ACTIVE BAT ROOSTS

Bat Species	Distance (in feet) Between Activity/Equipment and Active Roost					
	Construction Trucks and Heavy Equipment	Small Vehicles	Drilling, Trenching, and Small Equipment	Light Source without Shielding	Pedestrian Traffic	Stationary Diesel/ Gasoline Exhaust Sources >2 minutes
Pallid bat	120	90	150	400	65	250
Yuma myotis, Mexican free-tailed bat	90	65	150	250	65	250
Other species	100	65	150	300	65	250

Bat Exclusion. If maintaining an appropriate no-disturbance buffer around an active bat roost is not feasible, as determined by work personnel in consultation with a qualified biologist, bats may be excluded from their roosts under the guidance of a qualified biologist. Exclusion will occur either outside the maternity season (i.e., during the period from September 1 to March 31) or after the qualified biologist has determined that a maternity roost is not present.

Trees supporting active bat roosts may be removed using a two-step removal process under the direction and supervision of a qualified biologist, to encourage bats to leave the roost of their own volition. Removal of trees will preferentially take place during appropriate weather conditions as determined by a qualified biologist, consisting of a period of warm weather and dry conditions when nighttime lows are not less than 45° F and bats are most active. The first day of tree removal would involve the removal of tree limbs that do not support roost habitat features, so that the tree and any roosting bats are sufficiently disturbed and thereby encouraged to

vacate the tree. The tree may then be removed on the second day. If bats must be evicted from roosts in artificial structures, a qualified biologist will identify and oversee appropriate eviction methods, based on details of the structure.

Compensatory Mitigation. If a maternity colony of pallid bats of any size, more than 10 big brown bats, or more than 20 bats of other common species is determined to be present and the roost site must be physically removed by the program, replacement roost habitat that is appropriate to the species shall be provided. If the pre-activity survey and roost removal occur outside the maternity season and the status of the roost (i.e., as a maternity or non-maternity roost) is unknown, it will be assumed to be a maternity colony. The nature of the replacement roost habitat (e.g., the design of an artificial roost structure) will be determined by a qualified biologist based on the number and species of bats detected. Ideally, the roost structure should be installed no more [than] 100 feet from the location of the original roost (or as close to the location as possible). Exact placement of replacement habitat shall be determined in consultation with a qualified bat biologist.

Mitigation Measure BIO-25. Protection of American Badgers

For activities whose impacts on the American badger are not explicitly covered by the VHP or SBCCP, and that occur within or immediately adjacent to suitable denning habitat for American badgers and work activities could potentially impact this species (as determined by a qualified biologist), a pre-activity survey shall be conducted within 14 days prior to the start of work activities to determine the presence or absence of active badger dens within the work area, or close enough to the work area to be disturbed by work activities (as determined by a qualified biologist).

If an active badger den is identified during the pre-activity, an appropriate no-disturbance buffer, the size of which will be determined by a qualified biologist, will be established around the den if feasible.

During the period from March 1 through August 31, when young could be present within a natal den, a biological monitor shall be present during work activities that occur sufficiently close to any known or suspected badger den (as determined by a qualified biologist) to ensure the buffer is adequate to avoid direct impacts to individuals or den abandonment. Such monitoring shall occur until it is determined that young are of an independent age such that program activities will not result in harm to individual badgers.

During the period from March 1 through August 31, if the qualified biologist determines that young badgers are old enough to leave their natal den or have vacated the site, any active badger dens can be excavated, and ground disturbance can proceed. Alternatively, during the period from September 1 through the end of February, when young are unlikely to be present, if a non-natal badger den is located within the program activity work area, the den may be excavated by a qualified biologist to cause the badger to leave the area. Because badgers are known to use multiple burrows in a breeding den complex, multiple burrows may need to be excavated.

Finding

Changes or alterations have been required in, or incorporated into, the Project that mitigate or avoid the significant effects on the environment. The Board finds that MMs BIO-1 through 25 above are feasible and hereby adopts them. By conducting pre-activity surveys, monitoring,

avoidance, implementing avoidance buffers, collection and storage of native seed, implementing various species-specific protection measures, and implementing multiple dewatering measures, impacts to special status species would not be substantial and therefore, would be reduced to **less than significant with mitigation**.

IX.B.3 Biological Resources: Riparian Habitat or Sensitive Communities (Impact BIO-2A and BIO-2C)

Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service (less than significant with mitigation incorporated)

Impact (Final PEIR Section 3.3, page 3.3-92)

Riparian habitat or other identified sensitive communities, if present, could be adversely affected by several of the PMP's activities. Valley Water would apply BMPs, AMMs, and VHP conditions, as appropriate, to minimize impacts. However, there is a potential for loss or disturbance to habitat that could substantially affect sycamore alluvial woodland and alkaline grasslands. This would be a **significant** impact.

Mitigation (Final PEIR Section 3.3.4, pages 3.3-96, 3.3-102, and 3.3-104)

To reduce impacts of the PMP activities on the identified riparian or sensitive habitats, Valley Water will implement MM BIO-26 through MM BIO-28.

If program activities are covered under the forthcoming VHP amendment or the forthcoming SBCCP, MM BIO-26 would not be needed to reduce impacts on woody riparian vegetation to less than significant levels under CEQA. Rather, the program will comply with applicable habitat plan conditions to reduce impacts.

MITIGATION FOR IMPACT BIO-2A: LOSS OR DISTURBANCE OF RIPARIAN HABITAT, INCLUDING SYCAMORE ALLUVIAL WOODLAND

MM BIO-26: Implement Compensatory Mitigation for Woody Riparian Vegetation and Permanent Stream and Wetland Impacts

This measure will be implemented regardless of habitat plan coverage of program activities.

This measure will be implemented for any program activity whose impacts on woody riparian vegetation, streams, and wetlands are not covered by the VHP or SBCCP.

For direct temporary and/or permanent impacts on riparian (including sycamore alluvial woodland) habitat and direct permanent impacts on stream and wetland habitats that occur in the absence of VHP and/or SBCCP coverage, impact areas will be quantified, and if necessary, compensatory mitigation will be provided. When mitigation is necessary (i.e., when it is required by regulatory agencies under applicable permits), Valley Water proposes to provide compensation via the payment of VHP impact fees through the Habitat Agency's Voluntary Fee Payments Policy, if possible (e.g., depending on the work location and if the Habitat Agency can accommodate the mitigation), or by purchasing credits from an approved mitigation bank at a minimum 1:1 (mitigation: impact) ratio on an acreage basis for permanent impacts and a

minimum 0.1:1 ratio for temporary impacts (in addition to in situ restoration of temporarily impacted areas).

If the above options are not available, Valley Water would provide program activity-specific mitigation¹. Program activity-specific mitigation will be provided by one (or a combination) of the following methods on- or off-site (with preference to on-site or nearby off-site mitigation):

- In-kind restoration/creation: Valley Water will create, restore, preserve, and/or manage riparian habitats, streams, and/or wetlands, or substantially improve the quality of highly degraded riparian habitats, streams, and/or wetlands, at a minimum ratio of 1.5:1 (mitigation : impact) , or 3:1 for permanent impacts to sycamore alluvial woodland.
- In-kind enhancement: Valley Water will acquire, preserve, enhance, and/or manage lands that provide similar ecological functions and values to the riparian or wetland habitat impacted by program activities. The acquisition preservation, and/or enhancement of these higher-quality lands will occur at a ratio of 3:1 (mitigation : impact), or 5:1 for permanent impacts to sycamore alluvial woodland. Enhancement may include modification of existing management, limited planting, or invasive plant removal, or other activities to enhance habitat functions and values.
- In-kind preservation: Valley Water will acquire and manage lands that provide similar ecological functions and values to the riparian or wetland habitat impacted by program activities. The acquisition of these higher-quality lands will occur at a ratio of 3:1 (mitigation : impact), or 5:1 for permanent impacts to sycamore alluvial woodland, and may be managed by Valley Water or a partner agency in compliance with the program's mitigation requirements.
- Out-of-kind preservation and enhancement: Valley Water will acquire, preserve, enhance, and/or manage watershed lands which are not of the same habitat type as the impacts incurred. These lands provide more general conservation, open space, and habitat values, and will help to maintain the quality of riparian and wetland habitats downstream/downslope through management focused on benefits to the riparian/wetland environment, such as management to reduce erosion and sedimentation. Out-of-kind mitigation will occur at a ratio of minimum 8:1 (mitigation : impact), and will not be performed to mitigate impacts to sycamore alluvial woodland.

These options would be developed in an HMMP, which would be provided to agencies (e.g., the CDFW, USFWS, USACE, and/or RWQCB) for review, as applicable. A qualified biologist shall develop the HMMP describing the mitigation, which will contain the following components (or as otherwise modified by regulatory agency permit conditions):

- Mitigation design, including the expected hydrology source, planting plan, irrigation and maintenance plan, and adaptive management approach
- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of riparian vegetation type (e.g., dominance by natives) and extent appropriate for the riparian restoration location, and provision of ecological functions and values equal to or exceeding those in the riparian habitat affected. At a minimum, success criteria will include following:

¹ The mitigation ratios for these four options were selected to reflect the relative value of each type of mitigation, with in-kind restoration/creation having the lowest mitigation ratio to reflect its direct compensation for lost riparian and wetland habitat, and out-of-kind preservation of watershed lands having the highest mitigation ratio to reflect its more indirect value in protecting and enhancing riparian and wetland habitats.

- At Year 5 post-planting, canopy closure at the mitigation site will be at least 50 percent of the canopy closure at a nearby reference site (i.e., a site supporting the same habitat type as that being established at the mitigation site).

For a specific extent of impact to sycamore alluvial woodland, the mitigation that is applied to that impact will focus on enhancement, preservation, and/or restoration of that sensitive community type. Similarly, when impacts to high-quality occurrences of cottonwood-dominated forest occur, Valley Water will mitigate by providing cottonwood-dominated mitigation sites. "High-quality" occurrences will be determined by a qualified botanist based on criteria such as evidence of natural regeneration and the presence of multi-layered and multi-aged stands.

It is possible that this mitigation measure may be refined during permitting with the USACE, RWQCB, and CDFW, in which case the refinements required by these resource agencies would be implemented.

MITIGATION FOR IMPACT BIO-2C: LOSS OR DISTURBANCE OF ALKALINE GRASSLAND

MM BIO-27. Avoidance of Alkaline Grassland

This measure will be implemented for any program activity whose impacts on alkaline grassland are not covered by the SBCCP.

When designing program activities, Valley Water shall avoid impacts to alkaline grassland, or at least minimize such impacts, to the extent practicable while still completing the required work, as determined by work personnel in consultation with a qualified biologist. If all impacts on this habitat are avoided, MM BIO-29 is not necessary. If any alkaline grassland will be impacted by activities that are not covered under the SBCCP, MM BIO-28 will be implemented.

MM BIO-28. Compensate for the Loss of Alkaline Grassland

This measure will be implemented for any program activity whose impacts on alkaline grassland are not covered by the SBCCP.

If avoidance of alkaline grassland habitat is not feasible and more than 10 percent of the local extent of this grassland (as mapped by a qualified botanist) would be permanently impacted, compensatory mitigation will be provided by purchasing credits from an approved mitigation bank at a minimum 1:1 (mitigation: impact) ratio, or via the creation, enhancement, and/or preservation of alkaline grassland habitat. Creation of new alkaline grassland habitat or enhancement of low-quality habitat would be provided at a minimum 1.5:1 (mitigation: impact) ratio; preservation and management of high-quality alkaline grassland habitat would be provided at a minimum 1:1 (mitigation: impact) ratio.

A HMMP will be developed by qualified plant or restoration ecologists and implemented for the mitigation lands. At a minimum, the HMMP will contain the following components (or as modified by regulatory agency permit conditions):

- Summary of habitat impacts and proposed mitigation ratios
- Location of mitigation site(s) and description of existing site conditions
- Mitigation design, including the expected hydrology source, planting plan, irrigation and maintenance plan, and adaptive management approach

- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of riparian vegetation type (e.g., dominance by natives) and extent appropriate for the riparian restoration location, and provision of ecological functions and values equal to or exceeding those in the riparian habitat affected. At a minimum, success criteria will include the following:
 - At Year 5 post-planting, alkaline grassland coverage at the mitigation site will be at least 50 percent of the coverage at a nearby reference site (i.e., a site supporting the same habitat type as that being established at the mitigation site).

Finding

Changes or alterations have been required in, or incorporated into, the Project that mitigate or avoid the significant effects on the environment. The Board finds that MMs BIO-26 through 28 above are feasible and hereby adopts them. By implementing compensatory mitigation and avoidance measures, impacts to riparian habitat or sensitive communities would not be substantial and therefore, would be reduced to **less than significant with mitigation**.

IX.B.4 Biological Resources: Wetland Communities (Impact BIO-3)

Impact BIO-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (less than significant with mitigation incorporated)

Impact (Final PEIR Section 3.3, page 3.3-106)

Regulated wetland communities, if present, could be adversely affected by several of the PMP's activities. Valley Water would apply BMPs, AMMs, and VHP conditions, as appropriate, to minimize impacts. However, there is a potential for disturbance to habitat that could substantially affect aquatic and wetland communities. This would be a **significant** impact.

Mitigation (Final PEIR Section 3.3.4, page 3.3-110)

Following implementation of AMM BIO-1 to determine whether wetlands and other waters could occur in a given activity area, and whether planned activities would potentially impact these habitats, Valley Water would implement MM BIO-26 provided under Impact BIO-2A above to reduce impacts on these habitats. In addition, MM BIO-15 [under Impact BIO-1C] would ensure that an alternative water source is identified and used in situations when a pipeline is shut down and water from the pipeline is necessary to augment instream flows supporting wetland habitats, and MM BIO-19 [under Impact BIO-1D] would ensure that seasonal wetlands would be identified and impacts to such features would be minimized outside of the VHP permit area.

If program activities in a given work area are covered under the forthcoming VHP amendment or the forthcoming SBCCP, MM BIO-19 [under Impact BIO-1D] and BIO-26 [under Impact BIO-2A] would not be needed to reduce impacts to less than significant levels under CEQA. Rather, the program will comply with applicable habitat plan conditions to reduce impacts. MM BIO-25 [under Impact BIO-1G] would still be implemented to ensure that an alternative water source is identified and used in situations when a pipeline is shut down and water from the pipeline is necessary to augment instream flows supporting wetland habitats.

Finding

Changes or alterations have been required in, or incorporated into, the Project that mitigate or avoid the significant effects on the environment. The Board finds that MMs BIO-1, MM BIO-15, MM BIO-19, MM BIO-25, and MM-BIO-26 above are feasible and hereby adopts them. By implementing compensatory mitigation and avoidance measures, impacts to riparian habitat or sensitive communities would not be substantial and therefore, would be reduced to **less than significant with mitigation**.

IX.B.5 Cultural Resources

Impact CUL-1: Result in a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines (less than significant with mitigation incorporated)

Impact (Final PEIR Section 3.6, page 3.6-21)

Nearby structures, including known and unknown historic resources, could be adversely affected by PMP activities that could generate potentially damaging groundborne vibrations. Valley Water would apply BMPs and AMMs, as appropriate, to minimize impacts. Because historic resources could be damaged, this would be a **significant impact**.

Mitigation (Final PEIR Section 3.6.5, page 3.6-22)

Valley Water will implement MM NOI-3 to reduce impacts to structures and historic resources from groundborne vibrations under the PMP.

Mitigation Measure NOI-3: Groundborne Vibration-Control Plan

If use of any of the following vibration-generating equipment is required within the following minimum distances from any buildings or structures, Valley Water or its contractors will implement vibration monitoring in compliance with the requirements below.

**TABLE 5
MINIMUM DISTANCES FROM VIBRATION-GENERATING EQUIPMENT TO STRUCTURES**

Equipment	Minimum Distance to Structure
Jackhammer	15 feet
Loaded truck	25 feet
Large bulldozer	30 feet
Vibratory roller	50 feet
Pile driver (impact)	100 feet

Before beginning construction, a written plan will be submitted by the Valley Water project engineer to Valley Water's Environmental Health and Safety Unit to obtain approval of the Noise /Vibration Monitoring Plan. The Noise /Vibration Monitoring Plan will be implemented by the project engineer, detailing the procedures for noise monitoring which will address items required in MM NOI-1 and/or MM NOI-2 as applicable from Section 3.11, Noise, of this PEIR and the Vibration Monitoring requirements listed below:

- The name of the firm providing the vibration monitoring services
- A description of the instrumentation and equipment to be used
- Methods for mounting the instrumentation to the ground
- The data collection analysis procedure
- The number of vibration monitors to be used at each structure/building
- The means and methods of providing warning when particle velocity will be equal to or exceed specified limits
- The name(s) of the responsible person/vibration-monitoring personnel
- A contingency plan for alternative construction methods (e.g., use of smaller construction equipment or vehicles or hand tools) when PPV equals to or exceeds specified limits

After the vibration monitoring plan is approved by the Valley Water Environmental Health and Safety Unit and Project Engineer assigned to the construction project, the vibration monitoring equipment will be furnished and installed. The first vibration monitoring before the start of construction will establish the baseline for all subsequent recordings. Equipment will be in place and functioning properly before use of the above vibration-generating equipment within the minimum distances to structures identified. Because this PEIR evaluates impacts programmatically and all program circumstances are not foreseeable, this analysis conservatively used the Caltrans threshold for extremely fragile historic buildings (0.08 in/sec peak particle velocity (PPV)) for continuous/frequent intermittent sources as the significance threshold. More information on PPV is included in Section 3.11.1 (Noise). The equipment will be set up in a manner so that an immediate warning is given when the resultant PPV equal to or exceeding 0.08 in/sec is produced. The warning emitted by the vibration monitoring equipment will be transmitted instantaneously to the responsible person who has been designated by Valley Water or its contractor, by means of warning lights, audible sounds, or electronic transmission. The responsible person/vibration-monitoring personnel will have the authority to stop the work causing the vibration.

If the PPV reading on monitoring equipment equals to or exceeds 0.08 in/sec, work will cease immediately, and Valley Water or its contractor will implement the approved contingency plan to reduce and maintain the monitoring equipment reading below 0.08 in/sec before resuming work.

Finding

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment. The Board finds that MM NOI-3 is feasible and hereby adopts it. With the implementation of a Vibration Control Plan and vibration monitoring, impacts on historical sites would not be substantial and, therefore, would be reduced to **less than significant with mitigation**.

Impact CUL-2: Result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or disturb any human remains, including those interred outside of dedicated cemeteries (less than significant)

Impact (Final PEIR Section 3.6, page 3.6-24)

Ground disturbing PMP activities could adversely affect buried archaeological resources or disturb human remains. Valley Water would apply BMPs and AMMs, as appropriate, to minimize impacts. Because a because these sensitive resources could be damaged, this would be a **significant impact**.

Mitigation (Final PEIR Section 3.6.5, page 3.6-30)

Valley Water will implement MM CUL-1 and CUL-2 to reduce impacts to buried archaeological resources or buried human remains due to ground disturbing activities under the PMP.

Mitigation Measure CUL-1: Actions to Be Taken Prior to Disturbance or Excavation of Native (Non-Fill) Sediments.

Prior to the initiation of excavation activities that will disturb native soil, a cultural resources specialist will conduct a records search to determine whether known cultural resources are present within the program work area and whether the program work area has been previously studied. The record search will be conducted by a professional archaeologist at the Northwest Information Center of the California Historical Resource Information System, Sonoma State University, Rohnert Park. The record search will document cultural resources with a one-quarter mile radius of the planned excavation boundaries, and will obtain all pertinent cultural resources documents, maps, and records needed to assess the program work area's potential to contain significant cultural resources. A records search will not be necessary for work along Valley Water facilities for which a records search or cultural resource inventory study has been carried out within the past 5 years.

If the record search results indicate that a survey has not been conducted or was conducted more than 5 years ago, a cultural resources inventory (survey) of the program work area will be conducted. The survey will document whether surface cultural materials (historic-era or precontact) are present within the program work area. The results of the record search and, if needed, cultural resources inventory will be presented in a report to Valley Water along with recommendations on how to proceed.

If during evaluation of a PMP project, using the Preliminary Environmental Review Checklist (Appendix D), it is identified that excavations are to occur at or near known precontact archaeological sites, TCRs, and sites with known Native American burials, a Native American Monitor will be present. If Native American human remains are found during any field investigations, they must be treated with the utmost respect. All provisions of California Health and Safety Code Sections 7054 and 7050.5 and Public Resources Code Sections 5097.9 through 5097.99, as amended per Assembly Bill 2641, must be followed.

If a program activity involves excavation of subsurface sediments in an area classified as highest to moderate potential for buried cultural deposits (as indicated in Table 3.6 3), a Registered Professional Archaeologist (RPA) will be consulted as to the best course of action. This may include preemptive backhoe work or monitoring of excavations to determine the presence or absence of buried sites.

MM CUL-2: Inadvertent Discovery Plan

If an unanticipated archaeological resource is encountered during construction or dewatering, work in the immediate vicinity of the find will cease until all requirements relating to archaeological discoveries (described below) have been satisfied. Any ground-disturbing activities (including dewatering) will be halted within a 100-foot radius. The area will be secure from vandalism or further disturbance; a “no work” zone utilizing appropriate flagging will be created; and construction personnel will notify appropriate Valley Water staff. A RPA will be consulted and will evaluate the find and recommend further management actions.

The RPA will conduct a field assessment to determine if the discovery constitutes a potentially significant archaeological resource that requires further evaluation. The RPA will be familiar with standard thresholds of eligibility for precontact and/or historic-era resources. If the find is deemed potentially significant, it will be covered and/or fenced for protection, and crews will move to a new location so that a more in-depth evaluation and mitigation (if needed) can occur.

The RPA will provide Valley Water with written and digital photographic documentation of all observed materials. They will also discuss site constituents utilizing the guidelines for evaluating archaeological resources for inclusion on the National and/or California Register to make recommendations concerning a site’s eligibility. Based on the assessment, Valley Water will identify the appropriate CEQA and Section 106 cultural resources compliance procedure to be implemented.

If the find does not appear to meet the criteria of the National or California Register, construction may continue and, depending on the find, may require monitoring by the RPA. The authorized maintenance work may resume at the discovery site only after Valley Water Construction Manager has retained an RPA to monitor the site during continued construction and the Environmental Services Unit Manager has provided authorization to the Valley Water Construction Manager to continue work.

If the find appears significant, the RPA will determine if adverse impacts to the resources can be avoided. When avoidance is not feasible (e.g., maintenance activities cannot be deferred), Valley Water will develop an Action Plan (data-recovery plan). It will be prepared in accordance with the current professional standards and state and federal guidelines for reporting the results of the work and will describe the services of a Native American Monitor and a proposal for curation of cultural materials recovered from a non-grave context. The recovery effort will be detailed in a report prepared by the RPA in accordance with current archaeological standards.

In the event of the discovery of human remains (or the find consists of bones suspected to be human), the field crew supervisor will take immediate steps to secure and protect such remains from vandalism during periods when work crews are absent. A Valley Water representative will immediately notify the appropriate County Coroner and provide information that identifies the remains as Native American. If the remains are determined to be Native American, the Coroner will contact the NAHC within 24 hours of being notified of the remains. The NAHC then designates and notifies within 24 hours a Most Likely Descendant (MLD). The MLD has 24 hours to consult and provide recommendations for the treatment or disposition, with proper dignity, of the human remains and any associated artifacts. Human remains will be preserved in situ if continuation of the maintenance work, as determined by the RPA and MLD, will not cause further damage to the remains (this is the preferred alternative). The remains and any associated artifacts will be documented and the discovery location carefully backfilled (with

protective geo-fabric if desirable) and recorded in Valley Water project files, Environmental Services Manager protected cultural resources files, and Valley Water library protected files.

If human remains, or associated burial items are exposed and cannot be protected from further damage, they will be exhumed by the RPA at the discretion of the MLD and reburied with the concurrence of the MLD in a place mutually agreed upon by all parties.

Finding

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment. The Board finds that MM CUL-1 and CUL-2 are feasible and hereby adopts them. With the implementation of a records search for any disturbance to native soil and an Inadvertent Discovery Plan, impacts on buried archaeological resources or human remains, would not be substantial and, therefore, would be reduced to **less than significant with mitigation**.

IX.B.6 Geology and Soils

Impact GEO-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (less than significant with mitigation incorporated)

Impact (Final PEIR Section 3.2, page 3.2-29)

PMP activities including dewatering and ground disturbance, could directly or indirectly destroy a unique paleontological resource or site. Because a unique paleontological resource or site could be damaged or destroyed, this would be **significant impact**.

Mitigation (Final PEIR Section 3.2.4, page 3.2-31)

Valley Water will implement MM GEO-1 through GEO-5 to reduce impacts to paleontological resources due to PMP activities.

Mitigation Measure GEO-1: Unanticipated Fossil Discovery

If vertebrate remains or other potentially significant fossil resources are discovered during any program activity, all work in the immediate vicinity of the discovery will cease, the find will be protected in place, and workers will be required to notify Valley Water before the end of the workday. Valley Water will promptly assign qualified staff (i.e., a staff member meeting the criteria as a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology (SVP) Impact Mitigation Guidelines Revision Committee 2010, or most current revision), to evaluate the find and recommend appropriate follow-up treatment. Work may continue in other areas while evaluation (and, if needed, treatment) takes place, as long as the find can be adequately protected in the judgment of the qualified staff. Valley Water will be responsible for ensuring that the recommendations of the qualified staff regarding treatment and reporting are implemented.

Mitigation Measure GEO-2: Preliminary Screening of Ground Disturbance

All program activities involving ground disturbance in previously undisturbed sediment will be screened for their potential to involve geologic units with high or undetermined paleontological potential. Screening for activities involving only surface disturbance will consider the extent and

depth of the proposed disturbance, the three dimensional extent and severity of prior disturbance at the site, and the paleontological potential of surface-exposed geologic units. Screening for activities that involve subsurface disturbance (including excavation) also will consider the paleontological potential of potentially affected subsurface units, in addition to the parameters considered for surface disturbance-only activities. The screening results will inform the need for program activity-specific implementation of Mitigation Measures GEO-3 through GEO-5.

Mitigation Measure GEO-3: Assessment of Paleontological Potential in Areas of Undetermined Sensitivity

All ground-disturbing activities in previously undisturbed sediment in geologic units with undetermined paleontological potential, as documented in Appendix F (Fossil Content and Paleontological Potential by Geologic Unit) of this PEIR, will be subject to program activity-specific evaluation by staff meeting SVP criteria for a qualified professional paleontologist (per Society of Vertebrate Paleontology (SVP) Impact Mitigation Guidelines Revision Committee 2010, or most current revision). Ground-disturbing program activities situated on alluvial units of Holocene age also will undergo evaluation by a qualified professional paleontologist, to assess their potential to involve underlying paleontologically sensitive units (units with high paleontological potential), based on anticipated depth of disturbance and site-specific geology. Evaluations will be conducted consistent with SVP protocols (SVP Impact Mitigation Guidelines Revision Committee 2010, or most current revision) and will inform the need for program activity-specific implementation of MM GEO-4 and also may recommend additional or alternate measures if appropriate.

Mitigation Measure GEO-4: Paleontological Resources Mitigation Plan

For all program activities with reasonably foreseeable potential to result in ground disturbance in previously undisturbed sediment (including excavation) in geologic units with high paleontological potential, as defined by the Society of Vertebrate Paleontology (SVP), Valley Water will retain qualified staff to develop a Paleontological Resources Mitigation Plan (PRMP). “*Qualified staff*” is here defined as referring to staff meeting SVP criteria for a qualified professional paleontologist (per SVP Impact Mitigation Guidelines Revision Committee 2010, or most current revision).

The PRMP will be consistent with the SVP’s Standard Procedures for the Assessment and Mitigation of Adverse Impacts on Paleontological Resources (SVP Impact Mitigation Guidelines Revision Committee 2010) and Conditions of Receivership for Palaeontologic Salvage Collections (SVP Conformable Impact Mitigation Guidelines Committee 1996), or subsequent revisions of these documents. Thus, this mitigation measure will provide for at least the following.

- Performing implementation by qualified personnel, including a supervising paleontologist who meets the requirements for a qualified professional paleontologist as defined by the SVP, and monitor(s) who satisfy the SVP’s requirements for paleontological resource monitors (SVP Impact Mitigation Guidelines Revision Committee 2010 or most current revision)
- Conducting worker awareness training, per Mitigation Measure GEO-5
- Performing a preconstruction survey with salvage or protection in place, in any areas where surface disturbance of geologic units with high paleontological potential will occur
- Conducting preconstruction and construction-period coordination, following procedures and communications protocols

- Monitoring of ground-disturbing (surface and subsurface) activities known to involve, or potentially involving, geologic units with high paleontological potential. In all areas subject to monitoring, monitoring initially will be conducted full-time for grading and excavation, but the PRMP may provide for monitoring frequency in any given location to be reduced after 50 percent of the ground-disturbing activity has been completed, based on the professional judgment of the supervising paleontologist.
- Making provisions for a “stop work, evaluate, and treat appropriately” response in the event of a paleontological discovery, with appropriate treatment identified by the supervising paleontologist, based on the nature of the find and prevailing standards for paleontological resources protection
- Using sampling and data recovery procedures that are consistent with SVP protocols (SVP Impact Mitigation Guidelines Revision Committee 2010 and Society of Vertebrate Paleontology Conformable Impact Mitigation Guidelines Committee 1996, or most current revisions)
- Adhering to a repository agreement that provides for appropriate curation of any recovered materials, consistent with SVP requirements (SVP Conformable Impact Mitigation Guidelines Committee 1996 or most current revision)
- Following procedures for preparation, identification, and analysis of fossil specimens and data recovered, consistent with SVP requirements (SVP Conformable Impact Mitigation Guidelines Committee 1996 or most current revision) and any additional requirements of the designated repository institution
- Adhering to reporting procedures consistent with SVP requirements (SVP Impact Mitigation Guidelines Revision Committee 2010 or most current revision)

Before mobilization for any program tasks determined to warrant a PRMP, Valley Water will retain a supervising paleontologist who meets SVP standards for a qualified professional paleontologist (SVP Impact Mitigation Guidelines Revision Committee 2010 or most current revision) to implement the requirements of the PRMP. This person may, but will not necessarily, be the same individual who prepared the PRMP. Valley Water will be responsible for ensuring proper implementation of the PRMP.

Mitigation Measure GEO-5: Paleontological Resource Worker Awareness and Training

To support effective PRMP implementation and address the potential for unanticipated discoveries where a PRMP is not required, Valley Water will retain qualified staff to present in-person, hands-on worker awareness training for paleontological resources, to facilitate recognition of fossils in the field by construction staff. Training will be delivered before the start of ground disturbance in previously undisturbed sediment. As used here, “*qualified staff*” refers to an individual who satisfies one or both of the following criteria.

- A qualified professional paleontologist as defined by the Society of Vertebrate Paleontology (SVP) (SVP Impact Mitigation Guidelines Revision Committee 2010, or most current revision), who is experienced in delivering training to non-specialists
- A California-licensed professional geologist (PG) who has expertise in Santa Clara County/south San Francisco Bay Area Valley stratigraphy and paleontology and is experienced in delivering training to non-specialists

Training will include information on the possibility of encountering fossils during program activities, the types of fossils that may be seen and how to recognize them, and proper procedures in the event fossils are encountered. All field management and supervisory

personnel and workers who are involved with ground-disturbing activities will be required to take this training before beginning work on any program activity. On completion of the training, workers will be required to sign a form stating that they attended the training, understand, and will comply with the information presented.

Finding

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment. The Board finds that MM GEO-1 through MM GEO-5 are feasible and hereby adopts them. With the implementation of the Society of Vertebrate Paleontology's procedures and protocols in the event of discovery of paleontological resources, preliminary screening for ground disturbance on native soils, and a Resources Mitigation Plan, impacts on unique paleontological resources or sites would not be substantial and, therefore, would be reduced to **less than significant with mitigation**.

IX.B.7 Noise

Impact NOI-2: Generate excessive groundborne vibration or groundborne noise levels (less than significant with mitigation incorporated)

Impact (Final PEIR Section 3.11, page 3.11-35)

PMP activities could generate potentially excessive groundborne vibrations that could adversely affect structures and human receptors. Valley Water would apply BMPs and AMMs, as appropriate, to minimize impacts. Because structures or sensitive resources could be affected, this would be a **significant impact**.

Mitigation (Final PEIR Section 3.11.5, page 3.11-40)

To reduce impacts of groundborne vibration under Impact NOI-2, Valley Water would implement MM NOI-3, as presented under Section IX.B.4, *Cultural Resources*, for Impact CUL-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment. The Board finds that MM NOI-3 is feasible and hereby adopts it. With the implementation of a Vibration Control Plan and vibration monitoring, impacts on structures or human receptors would not be substantial and, therefore, would be reduced to **less than significant with mitigation**.

IX.B.8 Tribal Cultural Resources

Impact TCR-1: Would the program cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe (less than significant with mitigation incorporated)

Impact (Final PEIR Section 3.7, page 3.7-8)

PMP activities, including ground disturbance and dewatering, could adversely affect tribal cultural resources (TCRs). Valley Water would apply BMPs and AMMs, as appropriate, to minimize impacts. Because a because these TCRs could be negatively affected, this would be a **significant impact**.

Mitigation (Final PEIR Section 3.7.5, page 3.17-9)

To reduce impacts of dewatering and ground disturbance under TCR-1, Valley Water would implement MM CUL-1 and MM CUL-2, as presented under Section IX.B.4, *Cultural Resources*, for Impact CUL-2.

Finding

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment. The Board finds that MM CUL-1 and MM CUL-2 are feasible and hereby adopts them. With the implementation of a records search for any disturbance to native soil and an Inadvertent Discovery Plan, impacts on TCRs, would not be substantial and, therefore, would be reduced to **less than significant with mitigation**.

IX.C SIGNIFICANT IMPACTS THAT CANNOT BE MITIGATED TO LESS THAN SIGNIFICANT LEVELS

IX.C.1 Noise

Impact NOI-1: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the program in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (significant and unavoidable)

Impact (Final EIR Section 3.11, page 3.11-29)

Multiple PMP activities would require the use of noise-generating equipment and have the potential to result in a temporary increase in ambient noise in the vicinity of program work sites. Because of this substantial adverse change to ambient noise levels for construction during times prohibited by local noise ordinance, this would be a **significant impact**.

Mitigation (Final EIR Section 3.7.5, page 3.7-33)

To reduce impacts from noise-generating equipment during PMP activities during construction during times prohibited by local noise ordinances, Valley Water will implement MMs NOI-1 and MM NOI-2.

Mitigation Measure NOI-1: Construction Noise Notification

If program activities require the use of noise-generating construction vehicles or equipment within 180 feet of any sensitive noise receptor (as determined by implementation of AMM NOI-1), Valley Water or its contractor will review applicable noise ordinance regulations for the relevant local jurisdiction(s). If the applicable noise ordinance identifies a maximum construction noise limit, Valley Water or its contractor will implement the following:

- Post the construction schedule and the contact information for a public liaison responsible for responding to public inquiries and complaints at a publicly viewable location at the construction site before the start of construction.
- Notify neighbors/occupants within 300 feet of the program work site regarding the estimated duration of the activity at least 30 days in advance of the construction activities.

Mitigation Measure NOI-2: Nighttime/Weekend Noise Control and Notification

If program activities require the use of heavy construction equipment between the hours of 5 p.m. and 8 a.m. or on weekends, Valley Water or its contractor will review applicable nighttime and weekend noise restrictions for the relevant local jurisdiction(s). If work will occur outside allowable construction hours for any jurisdiction, Valley Water or its contractor will prepare and implement a nighttime/weekend noise control plan (to be implemented by the project engineer). At a minimum, the plan will include:

- Identification of applicable nighttime and/or weekend noise restrictions for the local jurisdiction

- An estimate of the noise levels that will be generated by the planned program activities, including groundborne vibration and noise
- An evaluation of the anticipated noise levels at sensitive receptors where people sleep (including residences and hotels) and the times during which construction noise is expected to be audible at these locations
- Identification of specific measures to reduce the noise levels at sensitive receptors. Such measures may include:
 - Installing temporary noise barriers between regions of significant activity and noise-sensitive receptors. If this measure is used, the noise control plan will identify the necessary height, location, material, and minimum noise reduction of the noise barriers.
 - Limiting use of noisy equipment. If this measure is used, the noise control plan will identify the necessary restrictions for specific pieces of equipment, such as locations where equipment may be used, allowable duration of use, and pieces of equipment that may not be used concurrently.
 - Other noise-reduction measures as identified by Valley Water or its contractor.

The noise control plan will be submitted to the Valley Water Environmental Health and Safety Unit for approval prior to initiating construction. (If a program activity also requires the development of a groundborne vibration monitoring plan, as discussed under Impact NOI-2 and MM NOI-3, the noise control plan may be combined with the vibration monitoring plan if both are required for the program activity.

Valley Water also will notify residents (through flyers, mailers, or door-to-door notification) within 300 feet of anticipated nighttime construction activities or weekend construction regarding the estimated duration of the activity at least 30 days in advance of the activity.

Findings

While implementation of MM NOI-1 and MM NOI 2 provide public notification, they would not reduce the noise levels and a local ordinance may still be violated. The Board finds that MMs NOI-1 and NOI-2, as described above, are feasible and hereby adopts them. Where use of heavy equipment for PMP activities during times prohibited by local noise ordinances may be required to effectively complete the work, Impact NOI-1 would be significant and unavoidable. Valley Water implements a good-neighbor policy in following noise ordinance jurisdictions. Additionally, not performing the routine inspection and maintenance activities under the PMP poses risk to the public utility users. The Board, therefore, finds that even with the implementation of MMs NOI-1 and NOI-2, PMP activities using noise-generating equipment in exceedance of a local noise ordinance may occur, would be irreversible, and represent a substantial adverse affect to the noise receptor. Therefore, this impact would be **significant and unavoidable**.

IX.D NOT CUMULATIVELY CONSIDERABLE CONTRIBUTIONS TO CUMULATIVE IMPACTS

The PEIR found that, for the following significant cumulative impacts, the PMP would not add cumulatively considerable contributions, without the need for mitigation measures. Although findings on impacts that are less-than-cumulatively considerable without mitigation are not

required by CEQA, the Board nevertheless finds, based on the PEIR and the entire record, that the PEIR's conclusions regarding these specific impacts are correct and supported by substantial evidence.

- Aesthetics (Final PEIR Section 4.6.12, page 4-38): Create a new source of substantial light or glare.
- Biological Resources (Final PEIR Section 4.6.3, page 4-20): Direct or indirect impacts on candidate, sensitive, or special status species in local or regional plans, policies, or regulations. riparian habitat or other sensitive natural community.
- Cultural resources (Final PEIR Section 4.6.6, page 4-28): Historical resources and archaeological resources or disturbance of human remains.
- Geology and Soils (Final PIER Section 4.6.2, page 4-20): Destroy or substantially damage a unique paleontological resource or a unique geologic feature.
- Tribal Cultural Resources (Final PEIR Section 4.6.7, page 4-30): Tribal cultural resources.

IX.E CUMULATIVELY CONSIDERABLE CONTRIBUTIONS TO CUMULATIVE IMPACTS

The PMP encompasses inspection and maintenance activities on existing water system infrastructure. The PMP does not include any activities that would expand the capacity of the system. As a result, the impacts associated with these activities are temporary and localized in nature, and therefore, do not contribute to unmitigated cumulative impacts on any environmental resources.

X. FINDINGS ON ALTERNATIVES

X.A FINDINGS REGARDING THE ALTERNATIVES ANALYZED IN EIR

The PEIR alternatives are described in Section IV of these Findings. Under the No Project Alternative, Valley Water would not update the existing PMP or the PMP Manual and would continue to conduct maintenance activities under the 2007 PMP Manual and 2007 PMP EIR. Activities not currently included in the 2007 PMP EIR would continue to undergo case-by-case CEQA analysis. Due to the physical activities occurring under the No Project Alternative being the same as with the proposed PMP update; there would be no lessened environmental impacts.

Under the Less Frequent Inspection and Maintenance Alternative, program tasks would continue to be completed under the existing 2007 PMP. This alternative would temporarily reduce potential impacts on hydrology, water quality, sensitive species, transportation, and emergency services due to decreased activity levels and less ground disturbance compared to the updated PMP. Reduced maintenance frequency would also lower equipment use, resulting in temporary reductions in air quality impacts, greenhouse gas emissions, and noise from maintenance activities. Emergency pipeline repair could increase significant and unavoidable impacts to several resources due to the absence of pre-planning and the implementation of

BMPs, program-specific AMMs, and mitigation measures. Resources that would see an increase in impacts would be hydrology and water quality, geology and soils, cultural resources, tribal cultural resources, biological resources, transportation, aesthetics, wildfire, utilities and service systems, and noise.

The Board finds the following with regard to the alternatives analyzed in the PEIR, as discussed in more detail below:

- The PEIR describes a reasonable range of alternatives to the Program as proposed.
- The Board has evaluated the comparative merits of the Updated PMP and alternatives and will consider the Updated PMP for approval.
- The Board rejects the No Project Alternative because it fails to meet any of the Program objectives, establish standard maintenance practices for conveyance systems, improve operational flexibility and adaptive management over time, and streamline environmental review and permit processing for maintenance.
- The Board rejects the Less Frequent Inspection and Maintenance Alternative because it fails to meet two of the three Program Objectives: improving operational flexibility and adaptive management over time, and streamlining environmental review and permit processing for maintenance. Additionally, the Board rejects this alternative due to its potential to significantly increase the long-term impacts of the Proposed Program. Adopting this alternative could also heighten the risk of noncompliance with Valley Water's legal obligations, jeopardizing its authority to manage and maintain water system infrastructure effectively.

X.B ADDITIONAL ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION

Valley Water initiated the alternatives development process following determination of the Proposed Program. Valley Water considered alternatives to the Proposed Program and individual measures based on input from Valley Water staff as no suggested alternatives were received in public scoping comments. This input included alternative measures that, either alone or grouped with other measures to form a complete alternative to the Proposed Program, could feasibly meet the Program objectives and avoid or substantially lessen one or more of the adverse environmental impacts identified in the analysis of the Proposed Program.

As discussed in Final EIR Chapter 5, *Alternatives*, Section 5.3, those alternatives that were considered and eliminated from further consideration are discussed below.

Alternative Locations. This alternative would require relocation of pipelines so that maintenance activities and associated impacts would occur in alternate locations. This alternative does not meet the feasibility criterion, as maintenance must focus on existing pipelines and system parts. Using an alternate location would require new pipelines, which would be costly, environmentally impactful, and unlikely to reduce future maintenance impacts.

Alternative Method of Repair. This alternative would consider alternative repair methods that could potentially reduce impacts. Alternative repair methods may be feasible but would not reduce environmental impacts, as the tasks involved are similar. The PMP follows industry standards and manufacturer specifications, with flexibility for staff to choose the appropriate method.

Alternative Method of Excavation. This alternative would consider different methods of excavation to reduce ground disturbance. Alternative excavation methods, such as using fewer bulldozers or less digging, cannot be defined at the program level due to project-specific needs and the need for flexibility.

Alternative of Defined Timing for Project Activities. This alternative would consider scheduling timing of program activities to reduce impacts. Schedules for program activities are determined by specific plans and may include timing limitations in sensitive areas. However, restricting activities, such as water releases, to specific times may not be necessary in all areas and could limit flexibility for emergency maintenance.

No Maintenance Activities. Under this alternative, future maintenance activities under the PMP would cease. Program activities would not be performed and no short-term specific impacts associated with program tasks, such as discharge, would occur. This alternative is infeasible as it would lead to pipeline degradation, system failure, and service interruptions, causing significant impacts. It is rejected for not meeting Valley Water's legal obligations as a water purveyor.

X.C POTENTIAL ALTERNATIVES SUGGESTED IN PUBLIC COMMENTS ON DRAFT PEIR AND AFTER DRAFT EIR RELEASE

No public comments suggested program alternatives. Valley Water has met CEQA requirements for a reasonable range of alternatives.

XI. EIR RECIRCULATION NOT REQUIRED

XI.A LEGAL REQUIREMENTS FOR EIR RECIRCULATION

A lead agency is required to recirculate a Draft EIR for additional public review when “significant” new information is added to the EIR after the initial public review, according to CEQA Guidelines Section 15088.5(a). New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such effect, including a feasible project alternative that the project proponents have declined to implement. “Significant new information” requiring recirculation includes, for example, a disclosure showing that:

- A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project but the project’s proponents decline to adopt it.
- The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Recirculation is not required where the new information added to the EIR merely clarifies, amplifies, or makes insignificant modifications to an adequate EIR, according to CEQA Guidelines Section 15088.5(b).

XI.B WHY DRAFT EIR COMMENTS, RESPONSES, AND REVISIONS DO NOT TRIGGER DRAFT EIR RECIRCULATION

No significant new information has been added to the PEIR in Draft PEIR comments, responses to Draft EIR comments, and Draft PEIR revisions made in the Final PEIR that would trigger a Draft EIR recirculation under CEQA Guidelines Section 15088.5(a) because:

- They did not disclose a new significant environmental impact that would result from the Project or from a new mitigation measure proposed to be implemented.
- They did not disclose a substantial increase in the severity of an environmental impact that would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- They did not disclose a feasible Project alternative or mitigation measure considerably different from others previously analyzed that would clearly lessen the adverse environmental impacts of the Project.
- They did not otherwise result in major revisions to the Draft PEIR that precluded meaningful public review and comment on a substantial, adverse project impact environment, a feasible mitigation measure, or an alternative not proposed or implemented.

Instead, only minor changes were made to the Draft PEIR in response to public comments and to amplify, clarify, and update certain information. The changes and new information provided in the Final EIR include:

- clarifications to the Draft PEIR analysis in response to comments received,
- minor revision to a program specific avoidance and minimization measure in response to comments received,
- corrections of typographic and editorial errors, and
- other Valley Water-initiated changes to the project description and impact analyses.

This new information does not include identification of new or substantially increased significant impacts associated with the PMP or mitigation measures that are considerably different from those previously analyzed that would clearly lessen the PMP's significant impacts.

The Board finds that the new information added to the Final PEIR merely clarifies, amplifies, or makes insignificant modifications in an adequate PEIR and is not "significant" within the meaning of CEQA Guidelines Section 15088.5. The Board further finds that incorporating the new information and corrections does not deprive the public of a meaningful opportunity to comment on the Program or its effects, and that no information has been added to the Final PEIR that would warrant recirculation pursuant to Public Resources Code Section 21092.1 or CEQA Guidelines Section 15088.5. This finding is based upon all the information presented in the Final PEIR and the record of proceedings.

XII. MITIGATION MONITORING AND REPORTING PLAN

The Board hereby finds that an MMRP has been prepared for the PEIR and has been adopted concurrently with these Findings [Public Resources Code Section 21081.6(a)(1)]. Valley Water will use the MMRP to track implementation of EIR mitigation measures adopted in these Findings.

XIII. STATEMENT OF OVERRIDING CONSIDERATIONS

As mentioned in Section I of these Findings, for a project that has significant impacts that cannot feasibly be avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a Statement of Overriding Considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." [CEQA Guidelines Sections 15093, 15043(b); see also Public Resources Code Section 21081(b).]

As described in these Findings, Valley Water has reduced the PMP's significant impacts to the extent feasible. The significant unavoidable impacts of the PMP are as follows:

- **Impact NOI-1:** Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the program in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The PMP's impacts to noise would be temporary and thus not would not be cumulatively considerable.

In determining whether to approve the PMP, the Board has weighed the economic, legal, social, technological, environmental, and other benefits of the PMP against its unavoidable significant environmental impacts. The PMP's benefits, supported by substantial evidence in the PEIR and elsewhere in the administrative record, include the following:

- General benefits provided by achieving the Program objectives to establish standard maintenance practices for Valley Water's conveyance systems, improve operational flexibility and adaptive management over time, and streamline environmental review and permit processing for maintenance.
- PMP-covered activities and tasks are necessary to meet Valley Water's obligations to deliver safe and reliable service as a water purveyor.

In consideration of the above-listed PMP benefits, the Board hereby finds that the benefits of the PMP outweigh its direct and unavoidable significant impacts on noise, which is considered "acceptable." Each benefit set forth above constitutes an overriding consideration warranting approval of the PMP, independent of the other benefits.

EXHIBIT B COVERSHEET

MITIGATION MONITORING AND REPORTING PROGRAM FOR THE PIPELINE MAINTENANCE PROGRAM

No. of Pages: 45

Exhibit Attachments: None

Mitigation Monitoring and Reporting Program

MMRP Requirements and Use

Santa Clara Valley Water District (Valley Water) proposes to update its existing Pipeline Maintenance Program (PMP or program) and PMP Manual, which serves, and would continue to serve, as a planning and implementation document to maintain Valley Water's raw, potable, and recycled water pipelines and associated conveyance system facilities. A Program Environmental Impact Report (PEIR) has been prepared to evaluate the potential environmental effects of implementing the proposed updates to the program. Mitigation measures were defined in the PEIR to reduce potentially significant impacts of implementation of the program.

Approval of the updated program will require implementation and monitoring of all the mitigation measures identified in the PEIR in compliance with the California Environmental Quality Act (CEQA). The CEQA Guidelines Section 15097(a) requires that:

"... in order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program."

CEQA Guidelines Section 15097(c) defines monitoring and reporting responsibilities of the lead agency.

"(c) The public agency may choose whether its program will monitor mitigation, report on mitigation, or both. "Reporting" generally consists of a written compliance review that is presented to the decision making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. "Monitoring" is generally an ongoing or periodic process of project oversight. There is often no clear distinction between monitoring and reporting and the program best suited to ensuring compliance in any given instance will usually involve elements of both. The choice of program may be guided by the following:

- (1) Reporting is suited to projects which have readily measurable or quantitative mitigation measures or which already involve regular review. For example, a report may be required upon issuance of final occupancy to a project whose mitigation measures were confirmed by building inspection.

MITIGATION MONITORING AND REPORTING PROGRAM

(2) Monitoring is suited to projects with complex mitigation measures, such as wetlands restoration or archeological protection, which may exceed the expertise of the local agency to oversee, are expected to be implemented over a period of time, or require careful implementation to assure compliance.

(3) Reporting and monitoring are suited to all but the most simple projects. Monitoring ensures that project compliance is checked on a regular basis during and, if necessary after, implementation. Reporting ensures that the approving agency is informed of compliance with mitigation requirements.”

This Mitigation Monitoring and Reporting Program (MMRP) is intended to facilitate implementation and monitoring of the mitigation measures to ensure that measures are executed. This process protects against the risk of non-compliance.

The purpose of the MMRP is to:

- Summarize the mitigation required for the implementation of the activities outlined in the PMP
- Comply with requirements of CEQA and the CEQA Guidelines
- Clearly define parties responsible for implementing and monitoring the mitigation measures
- Provide a plan for how to organize the measures into a format that can be readily implemented and monitored

MMRP Components

The MMRP provides a summary of all mitigation measures that will be implemented for the program. The mitigation measures are provided in Table 1. Each impact and mitigation measure is accompanied with identification of:

- Implementation and Timing – the party or parties that will undertake the mitigation measure and timing of implementation, including prior to construction, during construction, post construction, or a combination of construction phases
- Monitoring Responsibility – the monitoring and/or reporting actions to be undertaken to ensure the measure is implemented.

The responsible and involved parties will utilize the MMRP to identify actions that must take place to implement mitigation measures, the time of those actions and the parties responsible for implementing and monitoring the actions.

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
Impact AES-3: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area	MM AES-1: Low Illumination Nighttime Lighting. Whenever possible, work hours will be limited to 7:00 a.m. to 7:00 p.m. Monday through Saturday. When program activities are required beyond this time frame and require nighttime lighting, lighting will conform to restrictions of the relevant local jurisdiction. Measures such as directing lighting downward and away from residences and traffic, reducing bulb wattage to the minimum required, and using shrouds will be implemented.	Implementation: Valley Water Valley Water and its contractor(s) Timing: during construction	Valley Water
Special-Status Plants (Impact BIO-1A) Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service	If program activities in a given work area are covered under the forthcoming Valley Habitat Plan (VHP) amendment or the forthcoming SBCCP, and the plant species to be impacted are also covered, MM BIO-3 and MM BIO-4 below would not be needed to reduce impacts to less than significant levels under CEQA. Rather, the program will adhere to applicable habitat plan conditions to reduce impacts. MM BIO-1 (pre-activity surveys) and MM BIO-2 (avoidance buffers) would still be implemented to determine which plants may be present in the work area and would be impacted by the program, and to avoid impacts on these species where feasible. MM BIO-1. Pre-Activity Surveys for Special-Status Plants. This measure will be implemented regardless of habitat plan coverage of program activities. If a qualified biologist determines that known locations of big-scale balsamroot, pink creamsacs, Hospital Canyon larkspur, phlox-leaf serpentine bedstraw, Congdon's tarplant, spiny-sealed button-celery, prostrate vernal pool navarretia, saline clover, Hoover's button-celery, San Joaquin spearscale, and Hall's bush-mallow (all of which are CRPR 1B species), as well as any additional CRPR 1–4 species that may be detected in the program area in the future and for which the Habitat Agency's reserve system and/or SBCCP reserve system do not adequately offset impacts, or suitable habitat for such plants, is potentially present within the work areas, protocol-level surveys within areas identified as suitable habitat will be conducted by a qualified biologist within two (2) years prior to commencement of work. Surveys will be conducted during the appropriate time(s) of year (i.e., the target species' blooming period) to adequately identify the special-status plant(s) that could occur on the site of program activities. MM BIO-2. Avoidance Buffers. This measure will be implemented for any program activity whose impacts on a special-status plant occurrence are not covered by the VHP or SBCCP.	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	To the extent feasible, and in consultation with a qualified biologist, Valley Water will design and construct all proposed activities to avoid all impacts on populations of big-scale balsamroot, pink creamsacs, Hospital Canyon larkspur, phlox-leaf serpentine bedstraw, Congdon's tarplant, spiny-sepaled button-celery, prostrate vernal pool navarretia, saline clover, Hoover's button-celery, and San Joaquin spearscale, as well as Hall's bush-mallow outside of the VHP permit area, and any other CRPR 1–4 plant species that may be detected in the future outside the VHP and SBCCP permit areas (once those boundaries are established) or for which the Habitat Agency's reserve system or SBCCP reserve system does not support sufficient populations to offset program impacts. Avoided special-status plant populations will be protected by establishing and observing a buffer between plant populations and the impact area; the dimensions of the buffer will be determined by a qualified biologist based on the work to be performed and how the activity might impact those plants. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided will be marked in the field (e.g., with flagging, fencing, paint, or other means appropriate for the site in question). This marking will be maintained intact and in good condition throughout work activities, and all maintenance personnel will be trained on the locations of these plants, how their locations and the surrounding buffer are marked, and how impacts on these plants are to be avoided. An appropriate buffer may also consist of timing of work activities to occur during plant dormancy and to avoid critical life history stages (such as flowering and fruiting). If complete avoidance is not feasible and special-status plants will be impacted by the activity, MM BIO-3 shall be implemented. If more than 10 percent of a population (by occupied area or individuals) of the species listed above will be impacted by the activity as determined by a qualified plant ecologist, MM BIO-4 shall also be implemented. MM BIO-3. Seed Collection and Storage. This measure will be implemented for any program activity whose impacts on a special-status plant occurrence are not covered by the VHP or SBCCP. If any individual big-scale balsamroot, pink creamsacs, Hospital Canyon larkspur, phlox-leaf serpentine bedstraw, Congdon's tarplant, spiny-sepaled button-celery, prostrate vernal pool navarretia, saline clover, Hoover's button-celery, San Joaquin spearscale, and Hall's bush-mallow (all of which are CRPR 1B species), or additional CRPR 1–4 species that may be detected in the program area in the future and for which the Habitat Agency's reserve		

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	system and/or SBCCP reserve system do not adequately offset impacts are impacted by program activities, regardless of the extent of the impact, Valley Water will collect and bank seed with an accredited institution to facilitate potential future restoration opportunities and conserve the population's genetic diversity. MM BIO-4. Create or Enhance and Preserve Mitigation Populations. This measure will be implemented for any program activity whose impacts on a special-status plant occurrence are not covered by the VHP or SBCCP. Compensatory mitigation will be provided if more than 10 percent of the population of big-scale balsamroot, pink creamsacs, Hospital Canyon larkspur, phlox-leaf serpentine bedstraw, Congdon's tarplant, spiny-sealed button-celery, prostrate vernal pool navarretia, saline clover, Hoover's button-celery, or San Joaquin spearscale, or Hall's bush-mallow outside of the VHP permit area or SBCCP permit area (once those boundaries are established), or other CRPR 1–4 species that may be detected in the future outside the VHP permit area or SBCCP permit area (once those boundaries are established) or for which the Habitat Agency's reserve system or SBCCP reserve system does not support sufficient populations to offset program impacts, would be impacted. Compensatory mitigation will be provided by purchasing credits from an approved conservation bank at a 1:1 (mitigation: impact) ratio, or via the creation, enhancement, or preservation of occupied habitat for the impacted species. Creation of habitat and establishment of a new population would be provided at a minimum 1.5:1 (mitigation: impact) ratio; preservation and enhancement of an existing population would be provided at a minimum 1:1 (mitigation: impact) ratio. If mitigation occurs through creation of a new population, seed from the population to be impacted may be harvested (or seed may be obtained from another source at an appropriate location, as determined by a qualified biologist) and used to establish an entirely new population in suitable habitat. If compensatory mitigation is required pursuant to the paragraph above, a habitat mitigation and monitoring plan (HMMP) will be developed by qualified plant or restoration ecologists and implemented for the mitigation lands for a minimum of 10 years. That plan will include, at a minimum, the following information: • a summary of impacts to the special-status plant species in question, including impacts to its habitat, and the proposed mitigation;		

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	- a description of measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat, or other appropriate methods such as grazing, prescribed burns, planting native species, or mowing) the mitigation site for the species; - a description of measures to transplant individual plants or seeds from the impact area to the mitigation site, if appropriate (which will be determined by a qualified plant or restoration ecologist, who will take into account factors such as genetics and the spread of pathogens, such as <i>Phytophthora</i>); - proposed management activities to maintain high-quality habitat conditions for the species; - a description of habitat and species monitoring measures on the mitigation site. At a minimum, performance criteria will include demonstration that any plant population fluctuations over the monitoring period of a minimum of 10 years do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (i.e., that are not the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management). - contingency measures for mitigation elements that do not meet performance criteria.		
Special-Status Invertebrates (Impact BIO-1B) Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California	If impacts of a program activity on the monarch butterfly and/or Crotch's bumblebee are covered under the forthcoming VHP amendment or the forthcoming SBCCP, MM BIO-5 through BIO-8 below would not be needed. Rather, the program will comply with applicable habitat plan conditions to reduce impacts. MM BIO-5. Pre-Activity Survey for Crotch's Bumble Bees. This measure will be implemented as long as Crotch's bumble bee is considered a CESA candidate species or is listed under CESA, and if impacts of a program activity on the species are not explicitly covered (with Crotch's bumble bee considered a Plan-covered species) under the VHP or SBCCP. If suitable Crotch's bumble bee habitat is present, work will occur during the active colony period (April through August), and the activity could potentially impact Crotch's bumble bee or its habitat (as determined by a qualified biologist), focused pre-activity surveys for Crotch's bumble bees will be conducted within areas identified as suitable habitat by a	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
Department of Fish and Game or U.S. Fish and Wildlife Service	biologist who is qualified to identify Crotch's bumble bees and other local bumble bee species prior to commencement of work. Surveys shall not occur more than 14 days prior to these ground-disturbing and/or vegetation removal activities. The survey shall occur at least two hours after sunrise (>60F and <90F with no rain and no sustained wind of 10 mph or greater) or two hours before sunset and the survey area will include the work site boundaries and if accessible, a surrounding 50-foot buffer area. The survey duration will be appropriate to the size of the project site and buffer area based on the metric of approximately one person-hour of searching per three acres of suitable habitat. Surveys shall be visual encounters only, with identification aided by photographs. At a minimum, pre-construction survey methods will include the following: • Search areas with flowering plants for foraging Crotch's bumble bees. Observed foraging activity may indicate a nest is nearby, and therefore, the survey duration should be increased when foraging Crotch's bumble bees are present. • Visually look for Crotch's bumble bee nest entrances. Observe burrows, any other underground cavities, logs, or other possible nesting habitat including manmade objects. • Look and listen for concentrated bumble bee activity. Although different bumble bee species may have different habitat affinities and may favor the flowers of different plant species, they are generalists and Crotch's bumble bee frequently occur in the same areas, and often use the same flowering plants, as other bumble bee species. • If bumble bees are observed, obtain photos of the bees for documentation and to determine if the bees are Crotch's bumble bee or are not Crotch's bumble bee. • Photographs will be taken with an appropriate camera (e.g., a DSLR camera with a macro or telephoto lens with image stabilization or other cameras equipped with a view finder, continuous shooting mode, and macro or telephoto lens with image stabilization) from multiple angles to capture key features to aid identification, if possible, and be in focus. If a Crotch's bumble bee nest or individual is detected within the work area, MM BIO-6 below will be implemented. MM BIO-6. Crotch's Bumble Bee Monitoring. This measure will be implemented as long as Crotch's bumble bee is considered a CESA candidate species or is listed under CESA, and if		

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	impacts of a program activity on the species are not explicitly covered (with Crotch's bumble bee considered a Plan-covered species) under the VHP or SBCCP. If a Crotch's bumble bee nest is detected, a 50-foot no-disturbance buffer would be implemented around the nest unless a qualified biologist determines that a greater buffer distance is warranted or a smaller buffer distance would be appropriate (e.g., if a nest is found alongside an existing road where no excavation or other ground disturbing activities would occur). The buffer would be installed with a qualified biologist present to assure the buffer is clearly demarcated in the field with appropriate materials and signage. A biological monitor would monitor the nest long enough to determine the buffer was effective in protecting the nest (i.e., the nest is not getting disturbed, and the workers are aware of the prohibited work area). If a Crotch's bumble bee nest is present, the no-disturbance buffer will not be removed until a qualified biologist determines that the nest has senesced. To make this determination, a qualified biologist will monitor the nest multiple times over a 3-day period following observations of males and/or gynes, which indicate potential nest senescence. Monitoring will consist of observing the entrance(s) to the nest for at least an hour each time. If no Crotch's bumble bees are observed entering or exiting the nest during these monitoring events the nest will be determined inactive by the qualified biologist and the removal of the no-disturbance buffer can proceed. If Crotch's bumble bee is detected (regardless is a nest is present or not) a biological monitor will be onsite during any ground disturbance, dewatering, and vegetation removal activities that occur when Crotch's bumble bee are present within the activity footprint. A 25-foot no-disturbance buffer will be implemented around Crotch's bumble bee individuals within the area. Biological monitoring will continue until the Crotch's bumble bee leaves the area on its own. Because bumble bees are generalists, the removal of floral resources where Crotch's bumble bee are present could impact the health of the colony by limiting their food resources. If Crotch's bumble bees are present and floral resources that are in bloom must be removed, and no floral resources of similar quality are present nearby, the removal of those flowers will occur in a patchy manner (as directed by a qualified biologist) so that suitable flowers for foraging Crotch's bumble bee remain present.		

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	If Crotch's bumble bees are observed to be within harm's way after construction commences, or a suspected individuals is killed or injured, construction will be halted and Valley Water will immediately contact the CDFW for guidance. MM BIO-7. Milkweed Surveys and Avoidance. This measure will be implemented for program activities whose impacts on the monarch butterfly are not explicitly covered (with monarch butterfly considered a Plan-covered species) under the VHP or SBCCP. Prior to the start of maintenance activities occurring March through October involving ground disturbance or vegetation removal in areas providing potential habitat for milkweed plants, a qualified biologist will survey the footprint of all impact areas, plus a 25-foot surrounding buffer, for milkweed plants. The 25-foot buffer will be surveyed in case any minor modifications to the impact footprint become necessary, rather than implying that milkweed plants must be buffered by 25 feet. Ideally, the survey would be conducted from early April, when the plants would be identifiable from their vegetative structures (i.e., before flowering), through October, when the above-ground structures would be senescing but the plants would be identifiable by their seed pods and other characters. Surveys may be conducted in March only if the qualified biologist is able to demonstrate (e.g., based on examination of known, nearby reference occurrences) that milkweed was detectable and identifiable at the time. During the survey, the biologist would walk transects throughout all suitable habitat looking for milkweed plants. The survey transects will be spaced close enough to provide 100 percent visual coverage of all suitable habitat. Any milkweed plants detected during the survey will be marked with flagging, stakes, or other materials to denote their location, and/or their GPS coordinates will be recorded. To the extent feasible, Valley Water will avoid direct impacts to milkweed plants and minimize indirect impacts by retaining an appropriate buffer (to be determined by the qualified biologist) around plants that are to be avoided. If milkweed plants cannot be avoided during the period from March through October, MM BIO-8 will be implemented. MM BIO-8. Pre-Activity Survey for Monarch Butterflies. This measure will be implemented for program activities whose impacts on the monarch butterfly are not explicitly covered		

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	(with monarch butterfly considered a Plan-covered species) under the VHP or SBCCP, and if milkweed plants cannot be avoided during the period from March through October (as determined through implementation of MM BIO-7). If milkweed plants cannot be avoid during the period from March to October, a qualified biologist will survey milkweed plants for monarch butterfly eggs, larvae, or pupae to determine whether impacts to those plants will result in direct loss of monarchs. The survey will occur within three weeks, but no less than one week (to provide time for USFWS coordination if necessary), prior to the start of work in that area. If the plants do not support monarch eggs, larvae, or pupae, the qualified biologist will remove those plants immediately (during the survey) to prevent monarchs from laying eggs between the time of the survey and initiation of impacts. If any eggs, larvae, or pupae are detected within the survey area, a photo will be taken of a representative sample of each life stage for documentation purposes. If impacts to the plants supporting those individuals cannot be avoided or delayed until the emergence of those individual butterflies as adults, and the monarch butterfly becomes a listed species under FESA but is not covered under the VHP at the time the impact occurs, Valley Water will coordinate with the USFWS regarding recommendations. For example, larvae could be relocated to milkweeds outside the impact area, if those milkweeds are not already occupied by monarch eggs or larvae. Alternatively, raising monarch butterflies indoors has become popular even with the general public, and eggs, larvae, or pupae that cannot be avoided by program activities could potentially be raised to maturity in captivity (with USFWS approval).		
Special-Status Fish and Essential Fish Habitat (Impact BIO-1C) Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in	MM BIO-9. Temperature Change Limitations. During pipeline dewatering, a slow release is mandatory to ensure receiving waters do not experience a temperature change greater than 2 degrees Celsius in either direction in salmonid streams or 4 degrees Celsius in either direction in non-salmonid streams. MM BIO-10. Relocate Native Aquatic Vertebrates from Dewatered Channels. If fish or native aquatic vertebrates are present when cofferdams and water bypass structures are installed, a fish and native aquatic vertebrate relocation plan shall be implemented to ensure that fish and native aquatic vertebrates are not stranded. Relocation efforts will occur as follows:	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

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local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service	- Where water is to be diverted, prior to the start of work or during the installation of water diversion structures, native aquatic vertebrates shall be captured by qualified biologists in the work area and transferred to another reach as determined by a qualified biologist. - Aquatic invertebrates will not be transferred (other than incidental catches) because of their anticipated abundance and colonization after completion of the repair work. - If early life stages of special-status fish and/or amphibian species (in the absence of VHP and/or SBCCP take coverage) (i.e., eggs, fry, or larvae) are present and those life stages cannot be successfully relocated without harming them (e.g., steelhead eggs or fry), then the channel dewatering work will not occur until those early life stages are no longer present in the work area. - Relocations of special-status fish and/or amphibian species (in the absence of VHP and/or SBCCP take coverage) will be conducted by a qualified biologist with appropriate permits and/or in consultation with the CDFW, USFWS, and/or NMFS, as appropriate. MM BIO-11. Temporary Block Nets for Pipeline Dewatering. Temporary block nets, with openings less than or equal to 1/8 inch (3.125 millimeters) in diameter (California Department of Fish and Game 2003) shall be applied to any primary or secondary or side channel that could receive pipeline flows, causing attractant flows that will subside once pipeline dewatering is complete. Block nets will be periodically monitored for debris and removed after program activity completion and stabilization of water levels. MM BIO-12. Pump Screening for Pipeline Dewatering. During pipeline dewatering, mesh screens less than or equal to 1/8 inch (3.125 millimeters) in diameter (California Department of Fish and Game 2003), will be placed over the release openings of gravity drain gates and on the suction and release piping of any submersible pumps used for pipeline releases to minimize release of nonnative species for any release of Delta water or the inadvertent entry of special-status fish into pumps and pipelines. The screens must be examined throughout the draining process to remove nonnative species and to prevent debris clogging.		

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	MM BIO-13. Pump Screening for Creek Dewatering. When water is being pumped in a stream to dewater a section of creek, if the qualified biologist determines that special-status fish fry could potentially be present, pump intake screens will be less than or equal to 3/32 inch (2.39 millimeters) in diameter; otherwise, screens will be 5/32 inch (4.0 millimeters) in diameter (California Department of Fish and Game 2002). Screen designs will be approved of by a qualified biologist, to ensure that appropriate material is used so as to not injure fish. MM BIO-14. Pre-Activity Survey for Special-Status Fish for Pipeline Dewatering. Work areas located in suitable breeding habitat where early life stages of special-status fish (i.e., eggs or fry) could be present, as determined by a qualified biologist, will first be surveyed by a qualified biologist to ensure that no early life stages are present within 500 feet upstream and downstream of the proposed structure (within the stream channel). If early life stages of special-status fish are found and could be impacted by pipeline dewatering, then the release point would either not be used, be redirected further downstream (such as with a hose), or release will not occur until early life stages that could be impacted by the dewatering are no longer present. MM BIO-15. Alternative Water Source. If the Valley Water shuts down a pipeline that (at the time of shutdown) is functioning to augment stream flows during a drought year or under other conditions when pipeline water is necessary to maintain instream flows, then an alternative source of water will be identified before shutdown commences. Alternative sources of water would come from the following locations, in order of priority: 1. Other local water sources, such as from an upstream reservoir 2. Other raw water sources, such as another pipeline 3. Well water from a retailer 4. Dechlorinated municipal water piped to the site from the nearest hydrant or other repository		
Special-Status Amphibians and Reptiles (Impact BIO-1D)	If impacts of a program activity on one of these species are explicitly covered under the forthcoming VHP amendment or the forthcoming SBCCP, MM BIO-16 through MM BIO-20	Implementation: Valley Water Valley Water	

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Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service	below would not be implemented. Rather, the program will comply with applicable habitat plan conditions to reduce impacts. MM BIO-16: Protection of California Tiger Salamander and California Red-legged Frog. For program activities whose impacts on the California tiger salamander and California red-legged frog are not explicitly covered under the VHP or SBCCP, program activities will implement the following measures to protect the California tiger salamander and California red-legged frog in areas where these species potentially occur and for activities that could impact these species if they are present (as determined by the qualified biologist): Pre-Activity Survey: The work area will be surveyed by a qualified biologist within 48 hours prior to the start of work. Avoidance: Valley Water will avoid program activities whenever feasible in areas with suitable breeding and nonbreeding habitat. If program activities will occur within suitable habitat, if feasible and determined warranted by a qualified biologist, impacts will be minimized as follows: 1) conduct program work during times the species is least likely to be adversely affected, 2) use fencing to keep the species away from the construction zone, and 3) any burrows located within the work area will be flagged by the qualified biologist for avoidance. Access Routes: For construction projects, all off-road access routes to vaults or other program activity areas will be surveyed and if needed delineated by a qualified biologist prior to use. Routes located in such areas will not be more than 15 feet wide. Personnel will be required to adhere to marked paths, and no travel outside of marked access routes will be allowed. Avoid Animal Entry and Entrapment: All pipes, hoses, or similar structures less than 12 inches diameter will be closed or covered to prevent animal entry. In addition, all construction pipes, culverts, or similar structures, greater than 2 inches in 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. If inspection indicates presence of California tiger salamander or California red-legged inside stored materials or equipment, work on those materials will cease until a qualified biologist determines the appropriate course of action. 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	and its contractor(s) Timing: prior to construction and during construction	

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	following measures may be employed, depending on the size of the hole and method feasibility: 1) Hole to be securely covered with plywood, or similar materials, and its perimeter will be covered with dirt so there are no gaps, at the close of each working day; or 2) 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 3) 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. Pipeline Release: If a pipeline water release is scheduled to occur from January through August within potential breeding habitat (as determined by a qualified biologist), a survey for the species will be performed by a qualified biologist within 1 week prior to release. If eggs or larvae are found within 500 feet upstream or downstream of the release point and could be impacted by pipeline dewatering, then the release point would either not be used, be redirected further downstream (such as with a hose), or release will not occur until early life stages that could be impacted by the dewatering are no longer present. Procedure if Individuals are Encountered: If California tiger salamander or California red-legged frog, or an individual that may be these species, are found, a qualified biologist will be contacted immediately and any work that may result in the direct injury or mortality or indirect disturbance of the individual will immediately cease. If a California tiger salamander or California red-legged frog is determined to be present, an appropriately sized buffer (the size of which will be determined by the qualified biologist) will be established around the location of the individual(s) and work may proceed outside of the buffer zone (with a qualified biological monitor present, as needed and determined by the qualified biologist). No work will occur within the buffer zone. Work within the buffer zone will be rescheduled. The individual(s) will be allowed to leave under its (their) own volition. However, if, in the opinion of the qualified biologist, capture and removal of the individual(s) to a safe place outside of the work area is necessary to prevent adverse effects, the individual(s) will be captured and relocated by a qualified biologist with appropriate permits and/or in consultation with the CDFW and/or USFWS, as appropriate. MM BIO-17: Protection of Northwestern Pond Turtles. If impacts of a program activity on the northwestern pond turtle are not explicitly covered by the VHP and/or SBCCP, and if program activities will occur in habitats where northwestern pond turtles potentially occur		

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	as determined by a qualified biologist, a qualified biologist will conduct a pre-activity survey for the northwestern pond turtle within 48 hours prior to start of work. If a pond turtle, or a turtle that could possibly be a northwestern pond turtle is found, a qualified biologist will be contacted immediately and any work that may result in the direct injury or mortality or indirect disturbance of the individual will immediately cease. If a pond turtle is determined to be present, an appropriately sized buffer (the size of which will be determined by a qualified biologist) will be established around the location of the individual(s) and work may proceed outside of the buffer zone (with a qualified biological monitor present, as needed and determined by the qualified biologist). No work will occur within the buffer zone. Work within the buffer zone will be rescheduled. The individual(s) will be allowed to leave under its(their) own volition. However, if, in the opinion of the qualified biologist, capture and removal of the individual(s) to a safe place outside of the work area is necessary to prevent adverse effects, the individual will be captured and relocated by a qualified biologist with appropriate permits and/or in consultation with the CDFW and/or USFWS, as appropriate. If an active pond turtle nest is detected within the activity area, a buffer zone, the size of which will be determined by a qualified biologist, around the nest will be established and maintained. The buffer zone will remain in place until the young have left the nest, as determined by a qualified biologist. Should a pond turtle nest be unearthed during excavation, the CDFW and USFWS will be contacted immediately for guidance. MM BIO-18: Protection of Coast Horned Lizards. If impacts of a program activity on the coast horned lizard are not explicitly covered by the SBCCP, and if program activities will occur in habitats where coast horned lizards potentially occur as determined by a qualified biologist, a qualified biologist will conduct a pre-activity survey for the coast horned lizard within 48 hours prior to start of work. If a coast horned lizard, or a lizard that could possibly be a coast horned lizard is found, a qualified biologist will be contacted immediately and any work that may result in the direct injury or mortality or indirect disturbance of the individual will immediately cease. If a coast horned lizard is determined to be present, a buffer (the size of which will be determined by a qualified biologist) will be established around the location of the individual(s) and work may proceed outside of the buffer zone (with a qualified biological monitor present, as needed and determined by the qualified biologist). No work will occur within the buffer zone. Work within the buffer zone will be		

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	rescheduled. The individual(s) will be allowed to leave under its (their) own volition. However, if, in the opinion of the qualified biologist, capture and removal of the individual(s) to a safe place outside of the work area is necessary to prevent adverse effects, the individual will be captured and relocated by a qualified biologist with appropriate permits and/or in consultation with the CDFW. MM BIO-19: Protection of Wetlands. A qualified biologist will determine if wetlands are potentially present within the program activity work area, or close enough to the work area to be impacted by program activities. If wetlands may be present, a qualified biologist will survey the work area and immediately adjacent areas for wetlands within 30 days of the start of work activities. Temporary disturbance to and permanent loss of wetland and aquatic habitats will be avoided to the maximum extent feasible. All temporary staging areas and access roads will be located away from wetland habitat to the extent practicable, and wetland and aquatic habitats abutting development areas will be clearly demarcated to avoid inadvertent disturbance during work activities. If impacts to wetlands are unavoidable, Valley Water will notify the appropriate regulatory agencies and obtain applicable permits for any wetland impacts. MM BIO-20: Special-Status Amphibian and Reptile Compensatory Mitigation. If impacts of a program activity on suitable habitat for the California tiger salamander, California red-legged frog, or northwestern pond turtle are not explicitly covered by the VHP or SBCCP, all temporary impact areas will be returned to pre-work conditions as feasible. Temporary and permanent impact areas will be quantified, and if necessary, compensatory mitigation will be provided. If feasible, compensation for these effects will be provided via the payment of VHP impact fees through the Habitat Agency's Voluntary Fee Payments Policy. The VHP will require the payment of fees in accordance with the types and acreage of all land cover types impacted by the activity (including areas within and outside of waters of the U.S./state, and when no impacts on individual California tiger salamanders, California red-legged frogs, and/or northwestern pond turtles have occurred).		

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	Alternatively, when necessary, Valley Water proposes to compensate for these impacts by purchasing credits from an approved conservation bank, providing mitigation at a 1:1 (mitigation: impact) ratio on an acreage basis for both direct permanent and temporary impacts. If the above options are not available, Valley Water would provide mitigation through the creation, enhancement, or preservation of habitat for the impacted species. Creation of new habitat or enhancement of low-quality habitat would be provided at a minimum 1.5:1 (mitigation: impact) ratio; preservation and management of existing occupied habitat would be provided at a minimum 1:1 (mitigation: impact) ratio. Valley Water will develop an HMMP for the selected option, which will be provided to the CDFW and/or USFWS for review, as applicable for state and/or federally listed species. That plan will include, at a minimum, the following: • a description of measures to be undertaken if necessary to enhance (e.g., through focused management) the mitigation site for listed amphibians and/or reptiles; • proposed management activities to maintain high-quality habitat for listed amphibians and/or reptiles; and • a description of species monitoring measures on the mitigation site, including performance indicators and success criteria (including maintaining or increasing the abundance of upland refugia for listed amphibians and maintaining or improving the quality of aquatic habitat for the affected species) It is possible that this mitigation measure may be refined during the Section 7 consultation process with the USFWS (e.g., in the Biological Opinion covering program effects on the federally listed species) or the Section 2081(b) consultation process with the CDFW (e.g., in an Incidental Take Permit), in which case the refinements required by these agencies would be implemented.		
Nesting Common and Special-Status Birds (Impact BIO-1F) Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on	MM BIO-21: Compensatory Mitigation for Least Bell's Vireo, Burrowing Owl, and Tricolored Blackbird. If impacts of a program activity on breeding habitat for the least Bell's vireo, burrowing owl, or tricolored blackbird that has been occupied within the three (3) years prior to implementation of a program activity, as determined by a qualified biologist based on database searches and available survey data, are not explicitly covered by the VHP or SBCCP, and habitat quality will not be returned to pre-activity conditions or	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction	Valley Water

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any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service	better within one (1) year following the activity, permanent impact areas will be quantified, and if necessary, compensatory mitigation will be provided. If feasible (e.g., based on the work location and whether the Habitat Agency can accommodate the mitigation), compensation for these effects will be provided via the payment of VHP impact fees through the Habitat Agency's Voluntary Fee Payments Policy. The VHP will require the payment of fees in accordance with the types and acreage of all land cover types impacted by the activity (including areas within and outside of waters of the U.S./state, and when no impacts on individual least Bell's vireos, burrowing owls, and/or tricolored blackbirds have occurred). Alternatively, when necessary (i.e., if it is not possible to mitigate for impacts via the payment of VHP impact fees), Valley Water proposes to compensate for these impacts by purchasing credits from an approved conservation bank. If the above options are not available, Valley Water would provide mitigation through the following: • Creation, enhancement, and/or preservation of habitat for the impacted species. Creation of new habitat or enhancement of low-quality habitat would be provided at a minimum 1.5:1 (mitigation: impact) ratio, and preservation and management of existing occupied habitat would be provided at a minimum 1:1 (mitigation: impact) ratio. Valley Water will develop an HMMP for the selected option. That plan will include, at a minimum, the following: a description of measures to be undertaken to enhance (e.g., through focused management or other appropriate means) the mitigation site for nesting least Bell's vireos, burrowing owls, and/or tricolored blackbirds; • proposed management activities, such as riparian and wetland habitat enhancement, artificial burrows, measures targeted at sustaining populations of burrowing mammals, or other measures to maintain high-quality habitat for the affected species; and a description of species monitoring measures on the mitigation site, including performance indicators and success criteria (including maintaining or improvement the quality of habitat for the affected species) The HMMP will be provided to the CDFW and/or USFWS for review, as applicable for state and/or federally protected species. While the minimum requirements for the HMMP listed above will be met, and will be sufficient to reduce impacts under CEQA, it is possible that this mitigation measure may be refined with supplemental and/or equivalent requirements	and during construction	

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	during the Section 7 consultation process with the USFWS (e.g., in the Biological Opinion covering program effects on the federally listed species) or the Section 2081 consultation process with the CDFW (e.g., in an Incidental Take Permit), in which case the refinements required by these agencies would be implemented.		
Potentially Breeding Special-Status Mammals and Breeding Bats (Impact BIO-1G) Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service	If program activities in a given work area are covered under the forthcoming VHP amendment or the forthcoming SBCCP, and the American badger and/or San Joaquin kit fox are also covered, MM BIO-16 and MM BIO-22 (for the San Joaquin kit fox), and/or MM BIO-25 (for the American badger) below would not be needed. Rather, the program will comply with applicable habitat plan conditions to reduce impacts. MM BIO-22: Protection of San Joaquin Kit Foxes. In the absence of VHP and/or SBCCP take coverage, program activities will implement the following measures to protect San Joaquin kit foxes in areas where this species potentially occurs for activities that could potentially impact the San Joaquin kit fox (as determined by the qualified biologist): • Within 14 days prior to the start of work activities, a qualified biologist will conduct a pre-activity survey for the San Joaquin kit fox, kit fox dens, and/or sign of kit fox. If a natal/pupping den is discovered within 200 feet of the work area, the USFWS and CDFW shall be immediately notified. Disturbance to all active San Joaquin kit fox dens shall be avoided. • Valley Water will establish exclusion zones around the kit fox dens, if determined to be present. The configuration of the exclusion should have a radius measured outward from the entrance or cluster of entrances. The following radii are minima to be applied: – Potential den: 50 feet – Known den: 100 feet – Natal/pupping den: USFWS and CDFW must be contacted (occupied and unoccupied) – Atypical den: 50 feet. If take of the San Joaquin kit fox will occur, take authorization from the USFWS and CDFW will be necessary. • Before any heavy equipment that has been stored overnight is moved, a qualified biologist or an individual trained by the qualified biologist to look for kit foxes shall	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction and during construction	

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	inspect the area underneath and around the equipment to ensure that no San Joaquin kit foxes are present and at risk of being harmed by moving equipment. • A qualified biologist will be on-site or on-call during all activities that could result in take of the San Joaquin kit fox. The biologist will have oversight over implementation of all components of MM BIO-22, and if any of the requirements associated with these measures are not being fulfilled, they will have the authority to stop program activities. • If any San Joaquin kit foxes are observed during the pre-activity survey or during the course of program activities, the USFWS and CDFW will be contacted for guidance. • If work will occur off-road/in natural areas, the limits of the work area, access route(s), and staging area(s) will be flagged, if not already marked by other fencing, and all activities will be confined within the marked area. • Nighttime work will be avoided to the maximum extent feasible. If nighttime work is absolutely necessary, it will occur with a qualified biologist present. • Vehicles using unpaved access roads will observe a 15-mile-per-hour speed limit. • No pets of any kind will be allowed in work areas. • Prior to the start of work each morning, the qualified biologist, or an individual trained by the qualified biologist to look for kit foxes, will inspect all parked vehicles and equipment, as well as stored equipment such as pipes, for kit foxes. • To prevent the inadvertent entrapment of San Joaquin kit foxes, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps (with no greater than a 3:1 slope) constructed of earthen fill or wooden planks. In addition, all pipes, culverts, or similar structures within a diameter of 3–12 inches that are stored on-site overnight will be thoroughly inspected for San Joaquin kit foxes by a qualified biologist, or an individual trained by the qualified biologist to look for kit foxes, before they are moved, buried, or capped. MM BIO-23: Protection of San Francisco Dusky-Footed Woodrats. In areas where the San Francisco dusky-footed woodrat potentially occurs for activities that could potentially impact woodrats (as determined by a qualified biologist), a qualified biologist will conduct a pre-activity survey for San Francisco dusky-footed woodrats when work will occur within potentially suitable habitat. The survey will be conducted within 14 days prior to the start of		

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	work in areas where the species may occur. If woodrats are present, the biologist will determine and flag an appropriate no-disturbance buffer around each nest for avoidance purposes. Valley Water will minimize impacts to nests by avoiding the direct destruction or modification of the nests to the extent feasible, as determined by work personnel in consultation with a qualified biologist. If one or more woodrat nests are determined to be present and physical disturbance or destruction of the nest(s) cannot be avoided, then the woodrats shall be evicted from their nests and the nest material relocated outside of the disturbance area, prior to onset of activities that would disturb the nest. First, an alternate location for the nest material shall be chosen by a qualified biologist based on the following criteria: 1) proximity to current nest location; 2) safe buffer distance from planned work; 3) availability of food resources; and 4) availability of cover. An alternate nest structure will then be built at the chosen location. The structure will be made up of small logs (e.g., available materials 2 inches in diameter or greater) stacked to provide a foundation on which the woodrats can add nest material. Subsequently, during the evening hours (i.e., within 2 hours prior to sunset), a qualified biologist will slowly dismantle the existing woodrat nest to allow any woodrats to flee and seek cover. All sticks from the nest will be collected and spread over the alternate structure. If young woodrats that are still dependent on their mother are discovered, relocation efforts will cease for the evening and the nest will be checked the following evening. If it is found that adults have relocated their dependent young, relocation activities will resume. If young remain in the nest after multiple nights of checking, the CDFW will be contacted for guidance and Valley Water will implement CDFW's guidance to minimize impacts on young woodrats. MM BIO-24. Protection of Roosting Bats. Pre-Activity Survey. If program activities will occur within or immediately adjacent to suitable roosting habitat for pallid bats or common species of bats for activities that could potentially impact these species (as determined by a qualified biologist), a qualified biologist will conduct a pre-activity survey to identify habitat features suitable for roosting bats within 14 days prior to the start of work activities. If desired, a preliminary survey may be also performed farther in advance (e.g., during the maternity season of a prior year) to assess whether bats are using a particular location, ensure that any necessary exclusion of bats from roosts can be scheduled prior to the work, and confirm the presence or absence of a maternity colony. If suitable habitat is present and thorough inspection of		

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	potential roost locations during the daytime is not feasible, a dusk emergence survey will be performed when bats, if present, can be observed flying out of a potential roost. If a colony of pallid bats of any size, at least 10 big brown bats, or more than 20 bats of other common species is present, the qualified biologist shall leave an acoustic detector at the roost location during the maternity season (defined as April 1 to August 31) for one to several nights, as needed, to determine if a maternity colony is present. If the pre-activity survey occurs outside the maternity season and the status of the roost (i.e., as a maternity or non-maternity roost) is unknown, it will be assumed to be a maternity colony. If roosting bats, or suitable roosting habitat for bats, are not detected during the pre-activity survey, no further measures are required. If high-quality suitable habitat is present and slated to be removed by the activity, and bats are not detected during the initial survey, the biologist shall conduct a follow-up survey (either a daytime survey or a dusk emergence survey, as appropriate and as determined by the qualified biologist) within 48 hours prior to the removal of the habitat. If roosting bats are absent, no additional measures are required. If roosting bats are present within or adjacent to the work location, the biologist will determine an appropriate no-disturbance buffer to protect the active roost. The size of the no-disturbance buffer will be determined by the qualified biologist based on the nature of the activity, the vulnerability of the roost to disturbance, and the time of year; typical buffers are provided in Table 3.3-6, Typical No-Disturbance Buffers Around Active Bat Roosts (H. T. Harvey & Associates 2019b). Buffers may need to be larger during the maternity season (defined as April 1 to August 31), when bats may be more sensitive to disturbance. The biologist will determine whether monitoring to determine if the bats are disturbed by the activity is feasible, and determine if monitoring is appropriate. If monitoring is performed, the biologist will have authority to stop work if program activities disturb the roosting bats. If the bats are observed exhibiting behaviors indicating they are likely to abandon an active day roost or maternity roost, the biologist will determine if the no-disturbance buffer needs to be increased.		

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Table 3.3-1 Typical No-Disturbance Buffers Around Active Bat Roosts

Bat Species	Distance (in feet) Between Activity/Equipment and Active Roost					
	Construction Trucks and Heavy Equipment	Small Vehicles	Drilling, Trenching, and Small Equipment	Light Source without Shielding	Pedestrian Traffic	Stationary Diesel/Gasoline Exhaust Sources >2 minutes
Pallid bat	120	90	150	400	65	250
Yuma myotis, Mexican free-tailed bat	90	65	150	250	65	250
Other species	100	65	150	300	65	250

Bat Exclusion. If maintaining an appropriate no-disturbance buffer around an active bat roost is not feasible, as determined by work personnel in consultation with a qualified biologist, bats may be excluded from their roosts under the guidance of a qualified biologist. Exclusion will occur either outside the maternity season (i.e., during the period from September 1 to March 31) or after the qualified biologist has determined that a maternity roost is not present.

Trees supporting active bat roosts may be removed using a two-step removal process under the direction and supervision of a qualified biologist, to encourage bats to leave the roost of their own volition. Removal of trees will preferentially take place during appropriate

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	weather conditions as determined by a qualified biologist, consisting of a period of warm weather and dry conditions when nighttime lows are not less than 45° F and bats are most active. The first day of tree removal would involve the removal of tree limbs that do not support roost habitat features, so that the tree and any roosting bats are sufficiently disturbed and thereby encouraged to vacate the tree. The tree may then be removed on the second day. If bats must be evicted from roosts in artificial structures, a qualified biologist will identify and oversee appropriate eviction methods, based on details of the structure. Compensatory Mitigation. If a maternity colony of pallid bats of any size, more than 10 big brown bats, or more than 20 bats of other common species is determined to be present and the roost site must be physically removed by the program, replacement roost habitat that is appropriate to the species shall be provided. If the pre-activity survey and roost removal occur outside the maternity season and the status of the roost (i.e., as a maternity or non-maternity roost) is unknown, it will be assumed to be a maternity colony. The nature of the replacement roost habitat (e.g., the design of an artificial roost structure) will be determined by a qualified biologist based on the number and species of bats detected. Ideally, the roost structure should be installed no more 100 feet from the location of the original roost (or as close to the location as possible). Exact placement of replacement habitat shall be determined in consultation with a qualified bat biologist. MM BIO-25. Protection of American Badgers. For activities whose impacts on the American badger are not explicitly covered by the VHP or SBCCP, and that occur within or immediately adjacent to suitable denning habitat for American badgers and work activities could potentially impact this species (as determined by a qualified biologist), a pre-activity survey shall be conducted within 14 days prior to the start of work activities to determine the presence or absence of active badger dens within the work area, or close enough to the work area to be disturbed by work activities (as determined by a qualified biologist). If an active badger den is identified during the pre-activity, an appropriate no-disturbance buffer, the size of which will be determined by a qualified biologist, will be established around the den if feasible. During the period from March 1 through August 31, when young could be present within a natal den, a biological monitor shall be present during work activities that occur sufficiently close to any known or suspected badger den (as determined by a qualified biologist) to		

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	ensure the buffer is adequate to avoid direct impacts to individuals or den abandonment. Such monitoring shall occur until it is determined that young are of an independent age such that program activities will not result in harm to individual badgers. During the period from March 1 through August 31, if the qualified biologist determines that young badgers are old enough to leave their natal den or have vacated the site, any active badger dens can be excavated, and ground disturbance can proceed. Alternatively, during the period from September 1 through the end of February, when young are unlikely to be present, if a non-natal badger den is located within the program activity work area, the den may be excavated by a qualified biologist to cause the badger to leave the area. Because badgers are known to use multiple burrows in a breeding den complex, multiple burrows may need to be excavated.		
Loss or Disturbance of Riparian Habitat, Including Sycamore Alluvial Woodland (Impact BIO-2A) Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service	MM BIO-26: Implement Compensatory Mitigation for Woody Riparian Vegetation and Permanent Stream and Wetland Impacts. This measure will be implemented for any program activity whose impacts on woody riparian vegetation, streams, and wetlands are not covered by the VHP or SBCCP. For direct temporary and/or permanent impacts on riparian (including sycamore alluvial woodland) habitat and direct permanent impacts on stream and wetland habitats that occur in the absence of VHP and/or SBCCP coverage, impact areas will be quantified, and if necessary, compensatory mitigation will be provided. When mitigation is necessary (i.e., when it is required by regulatory agencies under applicable permits), Valley Water proposes to provide compensation via the payment of VHP impact fees through the Habitat Agency's Voluntary Fee Payments Policy, if possible (e.g., depending on the work location and if the Habitat Agency can accommodate the mitigation), or by purchasing credits from an approved mitigation bank at a minimum 1:1 (mitigation: impact) ratio on an acreage basis for permanent impacts and a minimum 0.1:1 ratio for temporary impacts (in addition to in situ restoration of temporarily impacted areas).	Implementation: Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	If the above options are not available, Valley Water would provide program activity-specific mitigation¹. Program activity-specific mitigation will be provided by one (or a combination) of the following methods on- or off-site (with preference to on-site or nearby off-site mitigation): • In-kind restoration/creation: Valley Water will create, restore, preserve, and/or manage riparian habitats, streams, and/or wetlands, or substantially improve the quality of highly degraded riparian habitats, streams, and/or wetlands, at a minimum ratio of 1.5:1 (mitigation : impact) , or 3:1 for permanent impacts to sycamore alluvial woodland. • In-kind enhancement: Valley Water will acquire, preserve, enhance, and/or manage lands that provide similar ecological functions and values to the riparian or wetland habitat impacted by program activities. The acquisition preservation, and/or enhancement of these higher-quality lands will occur at a ratio of 3:1 (mitigation : impact), or 5:1 for permanent impacts to sycamore alluvial woodland. Enhancement may include modification of existing management, limited planting, or invasive plant removal, or other activities to enhance habitat functions and values. • In-kind preservation: Valley Water will acquire and manage lands that provide similar ecological functions and values to the riparian or wetland habitat impacted by program activities. The acquisition of these higher-quality lands will occur at a ratio of 3:1 (mitigation : impact), or 5:1 for permanent impacts to sycamore alluvial woodland, and may be managed by Valley Water or a partner agency in compliance with the program's mitigation requirements. • Out-of-kind preservation and enhancement: Valley Water will acquire, preserve, enhance, and/or manage watershed lands which are not of the same habitat type as the impacts incurred. These lands provide more general conservation, open space, and habitat values, and will help to maintain the quality of riparian and wetland		

¹ The mitigation ratios for these four options were selected to reflect the relative value of each type of mitigation, with in-kind restoration/creation having the lowest mitigation ratio to reflect its direct compensation for lost riparian and wetland habitat, and out-of-kind preservation of watershed lands having the highest mitigation ratio to reflect its more indirect value in protecting and enhancing riparian and wetland habitats.

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	habitats downstream/downslope through management focused on benefits to the riparian/wetland environment, such as management to reduce erosion and sedimentation. Out-of-kind mitigation will occur at a ratio of minimum 8:1 (mitigation : impact), and will not be performed to mitigate impacts to sycamore alluvial woodland. These options would be developed in an HMMP, which would be provided to agencies (e.g., the CDFW, USFWS, USACE, and/or RWQCB) for review, as applicable. A qualified biologist shall develop the HMMP describing the mitigation, which will contain the following components (or as otherwise modified by regulatory agency permit conditions): • Mitigation design, including the expected hydrology source, planting plan, irrigation and maintenance plan, and adaptive management approach • Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of riparian vegetation type (e.g., dominance by natives) and extent appropriate for the riparian restoration location, and provision of ecological functions and values equal to or exceeding those in the riparian habitat affected. At a minimum, success criteria will include following: – At Year 5 post-planting, canopy closure at the mitigation site will be at least 50 percent of the canopy closure at a nearby reference site (i.e., a site supporting the same habitat type as that being established at the mitigation site). For a specific extent of impact to sycamore alluvial woodland, the mitigation that is applied to that impact will focus on enhancement, preservation, and/or restoration of that sensitive community type. Similarly, when impacts to high-quality occurrences of cottonwood-dominated forest occur, Valley Water will mitigate by providing cottonwood-dominated mitigation sites. “High-quality” occurrences will be determined by a qualified botanist based on criteria such as evidence of natural regeneration and the presence of multi-layered and multi-aged stands. It is possible that this mitigation measure may be refined during permitting with the USACE, RWQCB, and CDFW, in which case the refinements required by these resource agencies would be implemented.		

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
Loss or Disturbance of Alkaline Grassland (Impact BIO-2C) Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service	If program activities in a given work area are covered under the forthcoming SBCCP, MM BIO-27 and MM BIO-28 below would not be needed to reduce impacts to less than significant levels under CEQA. Rather, the program will comply with applicable habitat plan conditions to reduce impacts. MM BIO-27. Avoidance of Alkaline Grassland. This measure will be implemented for any program activity whose impacts on alkaline grassland are not covered by the SBCCP. When designing program activities, Valley Water shall avoid impacts to alkaline grassland, or at least minimize such impacts, to the extent practicable while still completing the required work, as determined by work personnel in consultation with a qualified biologist. If all impacts on this habitat are avoided, MM BIO-29 is not necessary. If any alkaline grassland will be impacted by activities that are not covered under the SBCCP, MM BIO-28 will be implemented. MM BIO-28. Compensate for the Loss of Alkaline Grassland. This measure will be implemented for any program activity whose impacts on alkaline grassland are not covered by the SBCCP. If avoidance of alkaline grassland habitat is not feasible and more than 10 percent of the local extent of this grassland (as mapped by a qualified botanist) would be permanently impacted, compensatory mitigation will be provided by purchasing credits from an approved mitigation bank at a minimum 1:1 (mitigation: impact) ratio, or via the creation, enhancement, and/or preservation of alkaline grassland habitat. Creation of new alkaline grassland habitat or enhancement of low-quality habitat would be provided at a minimum 1.5:1 (mitigation: impact) ratio; preservation and management of high-quality alkaline grassland habitat would be provided at a minimum 1:1 (mitigation: impact) ratio. A HMMP will be developed by qualified plant or restoration ecologists and implemented for the mitigation lands. At a minimum, the HMMP will contain the following components (or as modified by regulatory agency permit conditions): • Summary of habitat impacts and proposed mitigation ratios • Location of mitigation site(s) and description of existing site conditions • Mitigation design, including the expected hydrology source, planting plan, irrigation and maintenance plan, and adaptive management approach	Implementation: Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of riparian vegetation type (e.g., dominance by natives) and extent appropriate for the riparian restoration location, and provision of ecological functions and values equal to or exceeding those in the riparian habitat affected. At a minimum, success criteria will include the following: - At Year 5 post-planting, alkaline grassland coverage at the mitigation site will be at least 50 percent of the coverage at a nearby reference site (i.e., a site supporting the same habitat type as that being established at the mitigation site).		
Impact BIO-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	MM BIO-26: Implement Compensatory Mitigation for Woody Riparian Vegetation and Permanent Stream and Wetland Impacts. This measure will be implemented for any program activity whose impacts on woody riparian vegetation, streams, and wetlands are not covered by the VHP or SBCCP. For direct temporary and/or permanent impacts on riparian (including sycamore alluvial woodland) habitat and direct permanent impacts on stream and wetland habitats that occur in the absence of VHP and/or SBCCP coverage, impact areas will be quantified, and if necessary, compensatory mitigation will be provided. When mitigation is necessary (i.e., when it is required by regulatory agencies under applicable permits), Valley Water proposes to provide compensation via the payment of VHP impact fees through the Habitat Agency's Voluntary Fee Payments Policy, if possible (e.g., depending on the work location and if the Habitat Agency can accommodate the mitigation), or by purchasing credits from an approved mitigation bank at a minimum 1:1 (mitigation: impact) ratio on an acreage basis for permanent impacts and a minimum 0.1:1 ratio for temporary impacts (in addition to in situ restoration of temporarily impacted areas).	Implementation: Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	If the above options are not available, Valley Water would provide program activity-specific mitigation². Program activity-specific mitigation will be provided by one (or a combination) of the following methods on- or off-site (with preference to on-site or nearby off-site mitigation): • In-kind restoration/creation: Valley Water will create, restore, preserve, and/or manage riparian habitats, streams, and/or wetlands, or substantially improve the quality of highly degraded riparian habitats, streams, and/or wetlands, at a minimum ratio of 1.5:1 (mitigation : impact) , or 3:1 for permanent impacts to sycamore alluvial woodland. • In-kind enhancement: Valley Water will acquire, preserve, enhance, and/or manage lands that provide similar ecological functions and values to the riparian or wetland habitat impacted by program activities. The acquisition preservation, and/or enhancement of these higher-quality lands will occur at a ratio of 3:1 (mitigation : impact), or 5:1 for permanent impacts to sycamore alluvial woodland. Enhancement may include modification of existing management, limited planting, or invasive plant removal, or other activities to enhance habitat functions and values. • In-kind preservation: Valley Water will acquire and manage lands that provide similar ecological functions and values to the riparian or wetland habitat impacted by program activities. The acquisition of these higher-quality lands will occur at a ratio of 3:1 (mitigation : impact), or 5:1 for permanent impacts to sycamore alluvial woodland, and may be managed by Valley Water or a partner agency in compliance with the program's mitigation requirements. • Out-of-kind preservation and enhancement: Valley Water will acquire, preserve, enhance, and/or manage watershed lands which are not of the same habitat type as the impacts incurred. These lands provide more general conservation, open space, and habitat values, and will help to maintain the quality of riparian and wetland		

² The mitigation ratios for these four options were selected to reflect the relative value of each type of mitigation, with in-kind restoration/creation having the lowest mitigation ratio to reflect its direct compensation for lost riparian and wetland habitat, and out-of-kind preservation of watershed lands having the highest mitigation ratio to reflect its more indirect value in protecting and enhancing riparian and wetland habitats.

MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	habitats downstream/downslope through management focused on benefits to the riparian/wetland environment, such as management to reduce erosion and sedimentation. Out-of-kind mitigation will occur at a ratio of minimum 8:1 (mitigation : impact), and will not be performed to mitigate impacts to sycamore alluvial woodland. These options would be developed in an HMMP, which would be provided to agencies (e.g., the CDFW, USFWS, USACE, and/or RWQCB) for review, as applicable. A qualified biologist shall develop the HMMP describing the mitigation, which will contain the following components (or as otherwise modified by regulatory agency permit conditions): • Mitigation design, including the expected hydrology source, planting plan, irrigation and maintenance plan, and adaptive management approach • Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of riparian vegetation type (e.g., dominance by natives) and extent appropriate for the riparian restoration location, and provision of ecological functions and values equal to or exceeding those in the riparian habitat affected. At a minimum, success criteria will include following: – At Year 5 post-planting, canopy closure at the mitigation site will be at least 50 percent of the canopy closure at a nearby reference site (i.e., a site supporting the same habitat type as that being established at the mitigation site). For a specific extent of impact to sycamore alluvial woodland, the mitigation that is applied to that impact will focus on enhancement, preservation, and/or restoration of that sensitive community type. Similarly, when impacts to high-quality occurrences of cottonwood-dominated forest occur, Valley Water will mitigate by providing cottonwood-dominated mitigation sites. “High-quality” occurrences will be determined by a qualified botanist based on criteria such as evidence of natural regeneration and the presence of multi-layered and multi-aged stands. It is possible that this mitigation measure may be refined during permitting with the USACE, RWQCB, and CDFW, in which case the refinements required by these resource agencies would be implemented. If program activities in a given work area are covered under the forthcoming SBCCP, MM BIO-27 and MM BIO-28 below would not be needed to reduce impacts to less than		

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility														
	significant levels under CEQA. Rather, the program will comply with applicable habitat plan conditions to reduce impacts.																
Impact CUL-1: Result in a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines	MM NOI-3: Groundborne Vibration-Control Plan. If use of any of the following vibration-generating equipment is required within the following minimum distances from any buildings or structures, Valley Water or its contractors will implement vibration monitoring in compliance with the requirements below. <table><tr><th colspan="2">Minimum Distances from Vibration-Generating Equipment to Structures</th></tr><tr><th>Equipment</th><th>Minimum Distance to Structure</th></tr><tr><td>Jackhammer</td><td>15 feet</td></tr><tr><td>Loaded truck</td><td>25 feet</td></tr><tr><td>Large bulldozer</td><td>30 feet</td></tr><tr><td>Vibratory roller</td><td>50 feet</td></tr><tr><td>Pile driver (impact)</td><td>100 feet</td></tr></table> Before beginning construction, a written plan will be submitted by the Valley Water project engineer r to Valley Water’s Environmental Health and Safety Unit to obtain approval of the Noise /Vibration Monitoring Plan. The Noise /Vibration Monitoring Plan will be implemented by the project engineer, detailing the procedures for noise monitoring which will address items required in MM NOI-1 and/or MM NOI-2 as applicable from Section 3.11, Noise, of this PEIR and the Vibration Monitoring requirements listed below: • The name of the firm providing the vibration monitoring services • A description of the instrumentation and equipment to be used • Methods for mounting the instrumentation to the ground • The data collection analysis procedure • The number of vibration monitors to be used at each structure/building • The means and methods of providing warning when particle velocity will be equal to or exceed specified limits • The name(s) of the responsible person/vibration-monitoring personnel	Minimum Distances from Vibration-Generating Equipment to Structures		Equipment	Minimum Distance to Structure	Jackhammer	15 feet	Loaded truck	25 feet	Large bulldozer	30 feet	Vibratory roller	50 feet	Pile driver (impact)	100 feet	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water
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	A contingency plan for alternative construction methods (e.g., use of smaller construction equipment or vehicles or hand tools) when PPV equals to or exceeds specified limits After the vibration monitoring plan is approved by the Valley Water Environmental Health and Safety Unit and Project Engineer assigned to the construction project, the vibration monitoring equipment will be furnished and installed. The first vibration monitoring before the start of construction will establish the baseline for all subsequent recordings. Equipment will be in place and functioning properly before use of the above vibration-generating equipment within the minimum distances to structures identified. Because this PEIR evaluates impacts programmatically and all program circumstances are not foreseeable, this analysis conservatively used the Caltrans threshold for extremely fragile historic buildings (0.08 in/sec peak particle velocity (PPV)) for continuous/frequent intermittent sources as the significance threshold. More information on PPV is included in Section 3.11.1 (Noise). The equipment will be set up in a manner so that an immediate warning is given when the resultant PPV equal to or exceeding 0.08 in/sec is produced. The warning emitted by the vibration monitoring equipment will be transmitted instantaneously to the responsible person who has been designated by Valley Water or its contractor, by means of warning lights, audible sounds, or electronic transmission. The responsible person/vibration-monitoring personnel will have the authority to stop the work causing the vibration. If the PPV reading on monitoring equipment equals to or exceeds 0.08 in/sec, work will cease immediately, and Valley Water or its contractor will implement the approved contingency plan to reduce and maintain the monitoring equipment reading below 0.08 in/sec before resuming work.		
Impact CUL-2: Result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or disturb any human remains, including those interred	MM CUL-1: Actions to Be Taken Prior to Disturbance or Excavation of Native (Non-Fill) Sediments. Prior to the initiation of excavation activities that will disturb native soil, a cultural resources specialist will conduct a records search to determine whether known cultural resources are present within the program work area and whether the program work area has been previously studied. The record search will be conducted by a professional archaeologist at the Northwest Information Center of the California Historical Resource Information System, Sonoma State University, Rohnert Park. The record search will document cultural resources with a one-quarter mile radius of the planned excavation	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

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outside of dedicated cemeteries	boundaries, and will obtain all pertinent cultural resources documents, maps, and records needed to assess the program work area's potential to contain significant cultural resources. A records search will not be necessary for work along Valley Water facilities for which a records search or cultural resource inventory study has been carried out within the past 5 years. If the record search results indicate that a survey has not been conducted or was conducted more than 5 years ago, a cultural resources inventory (survey) of the program work area will be conducted. The survey will document whether surface cultural materials (historic-era or precontact) are present within the program work area. The results of the record search and, if needed, cultural resources inventory will be presented in a report to Valley Water along with recommendations on how to proceed. If during evaluation of a PMP project, using the Preliminary Environmental Review Checklist (Appendix D), it is identified that excavations are to occur at or near known precontact archaeological sites, TCRs, and sites with known Native American burials, a Native American Monitor will be present. If Native American human remains are found during any field investigations, they must be treated with the utmost respect. All provisions of California Health and Safety Code Sections 7054 and 7050.5 and Public Resources Code Sections 5097.9 through 5097.99, as amended per Assembly Bill 2641, must be followed. If a program activity involves excavation of subsurface sediments in an area classified as highest to moderate potential for buried cultural deposits (as indicated in Table 3.6-3), a Registered Professional Archaeologist (RPA) will be consulted as to the best course of action. This may include preemptive backhoe work or monitoring of excavations to determine the presence or absence of buried sites. MM CUL-2: Inadvertent Discovery Plan. If an unanticipated archaeological resource is encountered during construction or dewatering, work in the immediate vicinity of the find will cease until all requirements relating to archaeological discoveries (described below) have been satisfied. Any ground-disturbing activities (including dewatering) will be halted within a 100-foot radius. The area will be secure from vandalism or further disturbance; a "no work" zone utilizing appropriate flagging will be created; and construction personnel will notify appropriate Valley Water staff. A RPA will be consulted and will evaluate the find and recommend further management actions.		

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	The RPA will conduct a field assessment to determine if the discovery constitutes a potentially significant archaeological resource that requires further evaluation. The RPA will be familiar with standard thresholds of eligibility for precontact and/or historic-era resources. If the find is deemed potentially significant, it will be covered and/or fenced for protection, and crews will move to a new location so that a more in-depth evaluation and mitigation (if needed) can occur. The RPA will provide Valley Water with written and digital photographic documentation of all observed materials. They will also discuss site constituents utilizing the guidelines for evaluating archaeological resources for inclusion on the National and/or California Register to make recommendations concerning a site's eligibility. Based on the assessment, Valley Water will identify the appropriate CEQA and Section 106 cultural resources compliance procedure to be implemented. If the find does not appear to meet the criteria of the National or California Register, construction may continue and, depending on the find, may require monitoring by the RPA. The authorized maintenance work may resume at the discovery site only after Valley Water Construction Manager has retained an RPA to monitor the site during continued construction and the Environmental Services Unit Manager has provided authorization to the Valley Water Construction Manager to continue work. If the find appears significant, the RPA will determine if adverse impacts to the resources can be avoided. When avoidance is not feasible (e.g., maintenance activities cannot be deferred), Valley Water will develop an Action Plan (data-recovery plan). It will be prepared in accordance with the current professional standards and state and federal guidelines for reporting the results of the work and will describe the services of a Native American Monitor and a proposal for curation of cultural materials recovered from a non-grave context. The recovery effort will be detailed in a report prepared by the RPA in accordance with current archaeological standards. In the event of the discovery of human remains (or the find consists of bones suspected to be human), the field crew supervisor will take immediate steps to secure and protect such remains from vandalism during periods when work crews are absent. A Valley Water representative will immediately notify the appropriate County Coroner and provide information that identifies the remains as Native American. If the remains are determined to be Native American, the Coroner will contact the NAHC within 24 hours of being notified of the remains. The NAHC then designates and notifies within 24 hours a Most Likely		

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	Descendant (MLD). The MLD has 24 hours to consult and provide recommendations for the treatment or disposition, with proper dignity, of the human remains and any associated artifacts. Human remains will be preserved in situ if continuation of the maintenance work, as determined by the RPA and MLD, will not cause further damage to the remains (this is the preferred alternative). The remains and any associated artifacts will be documented and the discovery location carefully backfilled (with protective geo-fabric if desirable) and recorded in Valley Water project files, Environmental Services Manager protected cultural resources files, and Valley Water library protected files. If human remains, or associated burial items are exposed and cannot be protected from further damage, they will be exhumed by the RPA at the discretion of the MLD and reburied with the concurrence of the MLD in a place mutually agreed upon by all parties.		
Impact GEO-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	MM GEO-1: Unanticipated Fossil Discovery. If vertebrate remains or other potentially significant fossil resources are discovered during any program activity, all work in the immediate vicinity of the discovery will cease, the find will be protected in place, and workers will be required to notify Valley Water before the end of the workday. Valley Water will promptly assign qualified staff (i.e., a staff member meeting the criteria as a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology (SVP) Impact Mitigation Guidelines Revision Committee 2010, or most current revision), to evaluate the find and recommend appropriate follow-up treatment. Work may continue in other areas while evaluation (and, if needed, treatment) takes place, as long as the find can be adequately protected in the judgment of the qualified staff. Valley Water will be responsible for ensuring that the recommendations of the qualified staff regarding treatment and reporting are implemented. MM GEO-2: Preliminary Screening of Ground Disturbance. All program activities involving ground disturbance in previously undisturbed sediment will be screened for their potential to involve geologic units with high or undetermined paleontological potential. Screening for activities involving only surface disturbance will consider the extent and depth of the proposed disturbance, the three-dimensional extent and severity of prior disturbance at the site, and the paleontological potential of surface-exposed geologic units. Screening for activities that involve subsurface disturbance (including excavation) also will consider the paleontological potential of potentially affected subsurface units, in addition to the	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

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	parameters considered for surface disturbance—only activities. The screening results will inform the need for program activity-specific implementation of Mitigation Measures GEO-3 through GEO-5. MM GEO-3: Assessment of Paleontological Potential in Areas of Undetermined Sensitivity. All ground-disturbing activities in previously undisturbed sediment in geologic units with undetermined paleontological potential, as documented in Appendix F (Fossil Content and Paleontological Potential by Geologic Unit) of this PEIR, will be subject to program activity-specific evaluation by staff meeting SVP criteria for a qualified professional paleontologist (per Society of Vertebrate Paleontology (SVP) Impact Mitigation Guidelines Revision Committee 2010, or most current revision). Ground-disturbing program activities situated on alluvial units of Holocene age also will undergo evaluation by a qualified professional paleontologist, to assess their potential to involve underlying paleontologically sensitive units (units with high paleontological potential), based on anticipated depth of disturbance and site-specific geology. Evaluations will be conducted consistent with SVP protocols (SVP Impact Mitigation Guidelines Revision Committee 2010, or most current revision) and will inform the need for program activity-specific implementation of MM GEO-4 and also may recommend additional or alternate measures if appropriate. MM GEO-4: Paleontological Resources Mitigation Plan. For all program activities with reasonably foreseeable potential to result in ground disturbance in previously undisturbed sediment (including excavation) in geologic units with high paleontological potential, as defined by the Society of Vertebrate Paleontology (SVP), Valley Water will retain qualified staff to develop a Paleontological Resources Mitigation Plan (PRMP). “<i>Qualified staff</i>” is here defined as referring to staff meeting SVP criteria for a qualified professional paleontologist (per SVP Impact Mitigation Guidelines Revision Committee 2010, or most current revision). The PRMP will be consistent with the SVP’s Standard Procedures for the Assessment and Mitigation of Adverse Impacts on Paleontological Resources (SVP Impact Mitigation Guidelines Revision Committee 2010) and Conditions of Receivership for Palaeontologic Salvage Collections (SVP Conformable Impact Mitigation Guidelines Committee 1996), or		

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility
	subsequent revisions of these documents. Thus, this mitigation measure will provide for at least the following. • Performing implementation by qualified personnel, including a supervising paleontologist who meets the requirements for a qualified professional paleontologist as defined by the SVP, and monitor(s) who satisfy the SVP's requirements for paleontological resource monitors (SVP Impact Mitigation Guidelines Revision Committee 2010 or most current revision) • Conducting worker awareness training, per Mitigation Measure GEO-5 • Performing a preconstruction survey with salvage or protection in place, in any areas where surface disturbance of geologic units with high paleontological potential will occur • Conducting preconstruction and construction-period coordination, following procedures and communications protocols • Monitoring of ground-disturbing (surface and subsurface) activities known to involve, or potentially involving, geologic units with high paleontological potential. In all areas subject to monitoring, monitoring initially will be conducted full-time for grading and excavation, but the PRMP may provide for monitoring frequency in any given location to be reduced after 50 percent of the ground-disturbing activity has been completed, based on the professional judgment of the supervising paleontologist. • Making provisions for a "stop work, evaluate, and treat appropriately" response in the event of a paleontological discovery, with appropriate treatment identified by the supervising paleontologist, based on the nature of the find and prevailing standards for paleontological resources protection • Using sampling and data recovery procedures that are consistent with SVP protocols (SVP Impact Mitigation Guidelines Revision Committee 2010 and Society of Vertebrate Paleontology Conformable Impact Mitigation Guidelines Committee 1996, or most current revisions) • Adhering to a repository agreement that provides for appropriate curation of any recovered materials, consistent with SVP requirements (SVP Conformable Impact Mitigation Guidelines Committee 1996 or most current revision) • Following procedures for preparation, identification, and analysis of fossil specimens and data recovered, consistent with SVP requirements (SVP Conformable Impact		

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	Mitigation Guidelines Committee 1996 or most current revision) and any additional requirements of the designated repository institution - Adhering to reporting procedures consistent with SVP requirements (SVP Impact Mitigation Guidelines Revision Committee 2010 or most current revision) - Before mobilization for any program tasks determined to warrant a PRMP, Valley Water will retain a supervising paleontologist who meets SVP standards for a qualified professional paleontologist (SVP Impact Mitigation Guidelines Revision Committee 2010 or most current revision) to implement the requirements of the PRMP. This person may, but will not necessarily, be the same individual who prepared the PRMP. Valley Water will be responsible for ensuring proper implementation of the PRMP. MM GEO-5: Paleontological Resource Worker Awareness and Training. To support effective PRMP implementation and address the potential for unanticipated discoveries where a PRMP is not required, Valley Water will retain qualified staff to present in-person, hands-on worker awareness training for paleontological resources, to facilitate recognition of fossils in the field by construction staff. Training will be delivered before the start of ground disturbance in previously undisturbed sediment. As used here, "<i>qualified staff</i>" refers to an individual who satisfies one or both of the following criteria. - A qualified professional paleontologist as defined by the Society of Vertebrate Paleontology (SVP) (SVP Impact Mitigation Guidelines Revision Committee 2010, or most current revision), who is experienced in delivering training to non-specialists - A California-licensed professional geologist (PG) who has expertise in Santa Clara County/south San Francisco Bay Area Valley stratigraphy and paleontology and is experienced in delivering training to non-specialists Training will include information on the possibility of encountering fossils during program activities, the types of fossils that may be seen and how to recognize them, and proper procedures in the event fossils are encountered. All field management and supervisory personnel and workers who are involved with ground-disturbing activities will be required to take this training before beginning work on any program activity. On completion of the training, workers will be required to sign a form stating that they attended the training, understand, and will comply with the information presented.		

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Impact NOI-1: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the program in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies	MM NOI-1: Construction Noise Notification. If program activities require the use of noise-generating construction vehicles or equipment within 180 feet of any sensitive noise receptor (as determined by implementation of AMM NOI-1), Valley Water or its contractor will review applicable noise ordinance regulations for the relevant local jurisdiction(s). If the applicable noise ordinance identifies a maximum construction noise limit, Valley Water or its contractor will implement the following: - Post the construction schedule and the contact information for a public liaison responsible for responding to public inquiries and complaints at a publicly viewable location at the construction site before the start of construction. Notify neighbors/occupants within 300 feet of the program work site regarding the estimated duration of the activity at least 30 days in advance of the construction activities. MM NOI-2: Nighttime/Weekend Noise Control and Notification. If program activities require the use of heavy construction equipment between the hours of 5 p.m. and 8 a.m. or on weekends, Valley Water or its contractor will review applicable nighttime and weekend noise restrictions for the relevant local jurisdiction(s). If work will occur outside allowable construction hours for any jurisdiction, Valley Water or its contractor will prepare and implement a nighttime/weekend noise control plan (to be implemented by the project engineer). At a minimum, the plan will include: - Identification of applicable nighttime and/or weekend noise restrictions for the local jurisdiction - An estimate of the noise levels that will be generated by the planned program activities, including groundborne vibration and noise - An evaluation of the anticipated noise levels at sensitive receptors where people sleep (including residences and hotels) and the times during which construction noise is expected to be audible at these locations - Identification of specific measures to reduce the noise levels at sensitive receptors. Such measures may include: - Installing temporary noise barriers between regions of significant activity and noise-sensitive receptors. If this measure is used, the noise control	Implementation: Valley Water Valley Water and its contractor(s) Timing: prior to construction and during construction	Valley Water

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Impact	Mitigation Measures	Implementation and Timing	Monitoring Responsibility										
	plan will identify the necessary height, location, material, and minimum noise reduction of the noise barriers. – Limiting use of noisy equipment. If this measure is used, the noise control plan will identify the necessary restrictions for specific pieces of equipment, such as locations where equipment may be used, allowable duration of use, and pieces of equipment that may not be used concurrently. – Other noise-reduction measures as identified by Valley Water or its contractor. • The noise control plan will be submitted to the Valley Water Environmental Health and Safety Unit for approval prior to initiating construction. (If a program activity also requires the development of a groundborne vibration monitoring plan, as discussed under Impact NOI-2 and MM NOI-3, the noise control plan may be combined with the vibration monitoring plan if both are required for the program activity. • Valley Water also will notify residents (through flyers, mailers, or door-to-door notification) within 300 feet of anticipated nighttime construction activities or weekend construction regarding the estimated duration of the activity at least 30 days in advance of the activity.												
Impact NOI-2: Generate excessive groundborne vibration or groundborne noise levels (less than significant with mitigation incorporated)	MM NOI-3: Groundborne Vibration-Control Plan. If use of any of the following vibration-generating equipment is required within the following minimum distances from any buildings or structures, Valley Water or its contractors will implement vibration monitoring in compliance with the requirements below. Minimum Distances from Vibration-Generating Equipment to Structures <table><tr><th>Equipment</th><th>Minimum Distance to Structure</th></tr><tr><td>Jackhammer</td><td>15 feet</td></tr><tr><td>Loaded truck</td><td>25 feet</td></tr><tr><td>Large bulldozer</td><td>30 feet</td></tr><tr><td>Vibratory roller</td><td>50 feet</td></tr></table>	Equipment	Minimum Distance to Structure	Jackhammer	15 feet	Loaded truck	25 feet	Large bulldozer	30 feet	Vibratory roller	50 feet	Implementation: Valley Water and its contractor(s) Timing: during construction	Valley Water
Equipment	Minimum Distance to Structure												
Jackhammer	15 feet												
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	Pile driver (impact) 100 feet Before beginning construction, a groundborne vibration control plan (to be prepared and implemented by the project engineer) will be submitted to the Valley Water Environmental Health and Safety Unit to obtain approval of the groundborne vibration control plan. The plan will detail the procedures for vibration monitoring, including • The name of the firm providing the vibration monitoring services • A description of the instrumentation and equipment to be used • Methods for mounting the instrumentation to the ground • The data collection analysis procedure • The number of vibration monitors to be used at each structure/building • The means and methods of providing warning when particle velocity will be equal to or exceed specified limits • The name(s) of the responsible person/vibration-monitoring personnel • A contingency plan for alternative construction methods when PPV equals to or exceeds specified limits After the vibration monitoring plan is approved by the Valley Water Environmental Health and Safety Unit and project engineer assigned to the construction project, the vibration monitoring equipment will be furnished and installed. The first vibration monitoring before the start of construction will establish the baseline for all subsequent recordings. Equipment will be in place and functioning properly before use of the above vibration-generating equipment within the minimum distances to structures identified. The equipment will be set up in a manner so that an immediate warning is given when the resultant PPV equal to or exceeding 0.08 in/sec is produced. The 0.08 in/sec PPV is the Caltrans threshold for extremely fragile historic buildings (see Table 3.11-5). The warning emitted by the vibration monitoring equipment will be transmitted instantaneously to the responsible person who has been designated by Valley Water or its contractor, by means of warning lights, audible sounds, or electronic transmission. The responsible person/vibration-monitoring personnel will have the authority to stop the work causing the vibration. If the PPV reading on monitoring equipment equals to or exceeds 0.08 in/sec, work will cease immediately, and Valley Water or its contractor will implement the approved		

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	contingency plan to reduce and maintain the monitoring equipment reading below 0.08 in/sec before resuming work.		
Impact TCR-1: Would the program cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section	MM CUL-1: Actions to Be Taken Prior to Disturbance or Excavation of Native (Non-Fill) Sediments. Prior to the initiation of excavation activities that will disturb native soil, a cultural resources specialist will conduct a records search to determine whether known cultural resources are present within the program work area and whether the program work area has been previously studied. The record search will be conducted by a professional archaeologist at the Northwest Information Center of the California Historical Resource Information System, Sonoma State University, Rohnert Park. The record search will document cultural resources with a one-quarter mile radius of the planned excavation boundaries, and will obtain all pertinent cultural resources documents, maps, and records needed to assess the program work area's potential to contain significant cultural resources. A records search will not be necessary for work along Valley Water facilities for which a records search or cultural resource inventory study has been carried out within the past 5 years. If the record search results indicate that a survey has not been conducted or was conducted more than 5 years ago, a cultural resources inventory (survey) of the program work area will be conducted. The survey will document whether surface cultural materials (historic-era or precontact) are present within the program work area. The results of the record search and, if needed, cultural resources inventory will be presented in a report to Valley Water along with recommendations on how to proceed. If during evaluation of a PMP project, using the Preliminary Environmental Review Checklist (Appendix D), it is identified that excavations are to occur at or near known precontact archaeological sites, TCRs, and sites with known Native American burials, a Native American Monitor will be present. If Native American human remains are found during any field investigations, they must be treated with the utmost respect. All provisions of California Health and Safety Code Sections 7054 and 7050.5 and Public Resources Code Sections 5097.9 through 5097.99, as amended per Assembly Bill 2641, must be followed. If a program activity involves excavation of subsurface sediments in an area classified as highest to moderate potential for buried cultural deposits (as indicated in Table 3.6-3), a Registered Professional Archaeologist (RPA) will be consulted as to the best course of	Implementation: Valley Water and its contractor(s) Timing: during construction	Valley Water

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5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe	action. This may include preemptive backhoe work or monitoring of excavations to determine the presence or absence of buried sites. MM CUL-2: Inadvertent Discovery Plan. If an unanticipated archaeological resource is encountered during construction or dewatering, work in the immediate vicinity of the find will cease until all requirements relating to archaeological discoveries (described below) have been satisfied. Any ground-disturbing activities (including dewatering) will be halted within a 100-foot radius. The area will be secure from vandalism or further disturbance; a “no work” zone utilizing appropriate flagging will be created; and construction personnel will notify appropriate Valley Water staff. An RPA will be consulted and will evaluate the find and recommend further management actions. The RPA will conduct a field assessment to determine if the discovery constitutes a potentially significant archaeological resource that requires further evaluation. The RPA will be familiar with standard thresholds of eligibility for precontact and/or historic-era resources. If the find is deemed potentially significant, it will be covered and/or fenced for protection, and crews will move to a new location so that a more in-depth evaluation and mitigation (if needed) can occur. The RPA will provide Valley Water with written and digital photographic documentation of all observed materials. They will also discuss site constituents utilizing the guidelines for evaluating archaeological resources for inclusion on the National and/or California Register to make recommendations concerning a site’s eligibility. Based on the assessment, Valley Water will identify the appropriate CEQA and Section 106 cultural resources compliance procedure to be implemented. If the find does not appear to meet the criteria of the National or California Register, construction may continue and, depending on the find, may require monitoring by the RPA. The authorized maintenance work may resume at the discovery site only after Valley Water Construction Manager has retained an RPA to monitor the site during continued construction and the Environmental Services Unit Manager has provided authorization to the Valley Water Construction Manager to continue work. If the find appears significant, the RPA will determine if adverse impacts to the resources can be avoided. When avoidance is not feasible (e.g., maintenance activities cannot be deferred or they must be completed to satisfy the program objective), Valley Water will		

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	develop an Action Plan (data-recovery plan). It will be prepared in accordance with the current professional standards and state and federal guidelines for reporting the results of the work and will describe the services of a Native American Monitor and a proposal for curation of cultural materials recovered from a non-grave context. The recovery effort will be detailed in a report prepared by the RPA in accordance with current archaeological standards. In the event of the discovery of human remains (or the find consists of bones suspected to be human), the field crew supervisor will take immediate steps to secure and protect such remains from vandalism during periods when work crews are absent. A Valley Water representative will immediately notify the appropriate County Coroner and provide information that identifies the remains as Native American. If the remains are determined to be Native American, the Coroner will contact the NAHC within 24 hours of being notified of the remains. The NAHC then designates and notifies within 24 hours a MLD. The MLD has 24 hours to consult and provide recommendations for the treatment or disposition, with proper dignity, of the human remains and any associated artifacts. Human remains will be preserved in situ if continuation of the maintenance work, as determined by the RPA and MLD, will not cause further damage to the remains (this is the preferred alternative). The remains and any associated artifacts will be documented and the discovery location carefully backfilled (with protective geo-fabric if desirable) and recorded in Valley Water project files, Environmental Services Manager protected cultural resources files, and Valley Water library protected files. If human remains, or associated burial items are exposed and cannot be protected from further damage, they will be exhumed by the RPA at the discretion of the MLD and reburied with the concurrence of the MLD in a place mutually agreed upon by all parties.		