Resolution 2019-18

A Resolution of the Board of Directors of the
Pajaro Valley Water Management Agency

Certifying the Final Environmental Impact Report, Adopting Findings Pursuant to the California Environmental Quality Act, Adopting a Statement of Overriding Considerations, and Adopting a Mitigation Monitoring and Reporting Program for the College Lake Integrated Resources Management Project

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The Board of Directors of the Pajaro Valley Water Management Agency does resolve as follows:

Section 1. Procedural Findings. The Board of Directors of the Pajaro Valley Water Management Agency ("Agency") does hereby find, determine, and declare that:

A. The Agency was formed, among other reasons, to provide integrated management of the ground and surface water resources within the Pajaro Valley Groundwater Basin ("Pajaro Basin"). As the sole local agency responsible for the integrated management of water resources for the Pajaro Basin, the Agency bears responsibility for the management and augmentation of water supplies for domestic, agricultural, municipal and industrial purposes.

B. In 1994, the Agency adopted a long-term Basin Management Plan ("BMP") which identified various water supply projects involving local water sources and importation of supplemental water, to balance water demands with water supplies in the Pajaro Basin. In 2002, the Agency adopted a revised BMP.

C. In 2010, the Agency formed an Ad Hoc BMP Committee to develop a further updated BMP that would include a portfolio of projects and programs to address the problems of seawater intrusion and basin overdraft in the Pajaro Basin. This work resulted in the Agency's adoption in 2014 of an updated BMP ("BMP Update").

D. Throughout much of the Pajaro Basin, groundwater levels have declined as a result of long-term groundwater overdraft. Overdraft conditions result in seawater intrusion, groundwater quality degradation, and groundwater storage depletion. To address these circumstances, and in furtherance of the BMP Update, the College Lake Integrated Resources Management Project ("Project") was developed. The primary purposes of the Project are to help balance the groundwater basin, prevent further seawater intrusion, and meet water supply needs in the Agency's service area by developing College Lake as a water storage and supply source.

E. The Project is located in the City of Watsonville and portions of unincorporated Santa Cruz County. Project components include a weir structure and intake pump station, a water treatment plant, and an approximately 5.5-mile long pipeline to convey water from the water treatment plant to the City of Watsonville Recycled Water Facility and to the Agency's Coastal Distribution System. On average, the Project would generally supply approximately 1,800 to 2,300 acre-feet per year of water to growers in the Pajaro Valley.

F. The Project was processed, including but not limited to all public notices, in the time and manner prescribed by State and local law, including the California Environmental Quality Act, Public Resources Code § 21000, *et seq*. (CEQA) and the CEQA Guidelines, 14. Cal. Code Regs. § 15000, *et seq*.

G. Pursuant to CEQA, the Agency is the lead agency for the Project because it is the public agency with the authority and principal responsibility for reviewing, considering, and potentially approving the Project.

H. The Agency determined that an environmental impact report (EIR) would be required for the Project and issued a Notice of Preparation (NOP) on November 28, 2017. The NOP was sent to the State Clearinghouse (SCH # 2017112063), responsible agencies, trustee agencies, and interested parties and posted on the Agency's website. The public review period extended from November 28, 2017 to January 5, 2018, and its purpose was to receive comments and input from interested public agencies and private parties on issues to be addressed in the EIR for the Project.

I. In accordance with CEQA Guidelines Section 15082(c)(1), two scoping meetings were held during the NOP review period, on December 12, 2017 at 3:00 p.m. and again at 7:00 p.m., to solicit additional suggestions on the scope of the Draft EIR. Attendees were provided an opportunity to identify verbally or in writing the issues they felt should be addressed in the Draft EIR.

J. The scope of the Draft EIR was determined based on the NOP, comments received in response to the NOP, and comments received at the scoping meetings conducted on December 12, 2017.

K. The Agency contracted for the independent preparation of a Draft EIR for the Project, including preparation and review, as applicable, of all necessary technical studies and reports in support of the Draft EIR. In accordance with CEQA and the CEQA Guidelines, the Agency analyzed the Project's potential impacts on the environment, potential mitigation, and potential alternatives to the Project.

L. Upon completion of the Draft EIR in April 2019, the Agency initiated a public comment period by preparing and sending a Notice of Availability (NOA) for the Draft EIR to all interested persons, agencies, and organizations. The Agency also filed a Notice of Completion (NOC) with the State Office of Planning and Research. The Draft EIR was made available for a sixty-five (65)-day public review period beginning April 17, 2019 and ending on June 21, 2019.

M. Copies of the Draft EIR were sent to various public agencies, as well as to organizations and individuals requesting copies. In addition, copies of the Draft EIR were available at the Agency's office located at 36 Brennan Street, Watsonville, California, and at the Watsonville Public Main Library and the Freedom Branch, and the Monterey County Library – Pajaro Branch. Electronic copies of materials incorporated by reference in the Draft EIR were also available for review at the Agency's office. The Draft EIR was also available 24 hours per day online at https://www.pvwater.org/college-lake-project.

N. In response to the Draft EIR, written comments were received from various public agencies, and individuals. In compliance with CEQA Guidelines Section 15088, the Agency prepared written responses to all comments. None of the comments presented any significant new environmental impacts or otherwise constituted significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines Section 15088.5.

O. The Final EIR consists of the Draft EIR and all of its appendices, the comments and responses to comments on the Draft EIR, and clarifications/revisions to the Draft EIR. The Final EIR was made available to the public and to all commenting agencies on September 30, 2019, which is at least 10 days prior to certification of the Final EIR, in compliance with Public Resources Code Section 21092.5(a).

P. On October 3, 2019, the Agency presented the Final EIR to the Agency's Board of Directors at a duly noticed public meeting, at which time it also invited public input on the Final EIR and the Project.

Q. On October 16, 2019, the Agency's Board of Directors, at a duly noticed public hearing, considered the Final EIR and the Project, at which time Agency staff and consultants presented a report and interested persons had an opportunity to be heard and to present evidence regarding the Final EIR and the Project.

R. Section 15091 of the CEQA Guidelines requires that the Agency, before approving a project for which an EIR is required, make one or more of the following written finding(s) for each significant effect identified in the EIR accompanied by a brief explanation of the rationale for each finding:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the Final EIR; or,

2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency; or,

3. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

S. These required written findings are set forth in Exhibit A, attached hereto and incorporated herein by reference as if set forth in full, and are hereby adopted.

1. Environmental impacts determined in the EIR to be potentially significant but reduced to less than significant with the imposition of mitigation are described in Section 4 of Exhibit A.

2. Environmental impacts that remain significant and unavoidable despite the imposition of all feasible mitigation are described in Section 5 of Exhibit A.

3. Alternatives to the Project that might eliminate or reduce significant environmental impacts are described in Section 6 of Exhibit A.

T. CEQA Guidelines Section 15093 requires that if a project will cause significant unavoidable adverse impacts, the Agency must adopt a Statement of Overriding Considerations prior to approving the project. A Statement of Overriding Considerations states that any significant adverse project effects are acceptable if expected project benefits outweigh unavoidable adverse environmental impacts. The Statement of Overriding Considerations is attached as Exhibit B, is incorporated herein by

reference as if set forth in full, and is hereby adopted.

U. CEQA Section 21081.6 requires the Agency to prepare and adopt a Mitigation Monitoring and Reporting Program for any project for which mitigation measures have been imposed to ensure compliance with the adopted mitigation measures. The Mitigation Monitoring and Reporting Program is attached as Exhibit C, is herein incorporated by reference as if set forth in full, and is hereby adopted.

V. Prior to taking action, the Agency Board of Directors has heard, been presented with, reviewed, and considered the information and data in the administrative record, including the Final EIR, the comments on the Draft EIR and Final EIR, responses to comments, staff reports and presentations, and all oral and written testimony presented during the public hearing on the Project.

W. The Agency's General Manager is the custodian of records, and the documents and other materials that constitute the record of proceedings upon which this decision is based are located at the Pajaro Valley Water Management Agency, 36 Brennan Street, Watsonville, California, 95076.

Section 2. Substantive Findings. The Board of Directors of the Pajaro Valley Water Management Agency does hereby:

A. Declare that the above Procedural Findings are true and correct, and incorporate them herein by this reference.

B. Find that agencies and interested members of the public have been afforded ample notice and opportunity to comment on the Final EIR and the Project.

C. Find and declare that the Board of Directors has independently considered the administrative record before it, which is hereby incorporated by reference and which includes the Final EIR, the comments on the Draft EIR, responses to comments incorporated into the Final EIR, staff reports and presentations, and all testimony related to environmental issues regarding the Project.

D. Find and determine that the Final EIR fully analyzes and discloses the potential impacts of the Project, and that those impacts have been mitigated or avoided to the extent feasible for the reasons set forth in the Findings attached as Exhibit A and incorporated herein by reference, with the exception of those impacts found to be significant and unavoidable as discussed therein.

E. Find and declare that the Final EIR reflects the independent judgment of the Board of Directors. The Board of Directors further finds that the additional information provided in the staff reports and presentations, in comments on the Draft EIR, the responses to comments on the Draft EIR, and the evidence presented in written testimony does not constitute new information requiring recirculation of the EIR under CEQA. None of the information presented has deprived the public or agencies of a meaningful opportunity to comment upon a substantial environmental impact of the Project or a feasible mitigation measure or alternative that the Agency has declined to implement.

F. Certify the Final EIR as being in compliance with CEQA. The Board of Directors further adopts the Findings pursuant to CEQA and the Statement of Overriding Considerations as set forth in Exhibits A and B hereto, and adopts the Mitigation Monitoring and Reporting Program attached as Exhibit C hereto. The Board of Directors further determines that all of the findings made in this Resolution (including Exhibits A and B) are based upon the information and evidence set forth in the Final EIR and upon other substantial evidence that has been presented at the hearings before the Board

of Directors, and in the record of the proceedings. The Board of Directors further finds that each of the overriding benefits stated in Exhibit B, by itself, would individually justify proceeding with the proposed Project despite any significant unavoidable impacts identified in the Final EIR or alleged in the record of proceedings.

G. Impose as a condition on the Project each mitigation measure specified in Exhibit C, and direct Agency staff to implement and to monitor the mitigation measures as described in Exhibit C.

H. Direct staff to file a Notice of Determination within five days of the adoption of this Resolution.

PASSED AND ADOPTED by the Pajaro Valley Water Management Agency, County of Santa Cruz, State of California, this **16th** day of **October, 2019** by the following vote:

AYES:	**Newell, Culbertson, Zamora, Bannister, Broz**
NOES:	**None**
ABSENT:	**Bussey**
ABSTAIN:	**None**

Amy R. Newell

Amy Newell, Chair

Attest:

L R Taay

Laura R. Taay, Board Secretary

Exhibit A

PV Water Board of Directors Findings Regarding the College Lake Integrated Resources Management Project

1. Introduction

1.1 Overview and Organization

This document presents the Findings of Fact for the Final Environmental Impact Report (FEIR) for the College Lake Integrated Resources Management Project (Project). The content and format of the Findings of Fact are designed to meet the requirements of the California Environmental Quality Act (CEQA). The FEIR identifies significant environmental effects that would result from the implementation of the Project, as well as potential alternatives to the Project. For each significant effect of the Project identified in the FEIR, the Pajaro Valley Water Management Agency (PV Water) is adopting one or more of the findings as provided in CEQA and specified in Section 15091 of Title 14 of the California Code of Regulations (CEQA *Guidelines*). For most significant effects, PV Water finds that the mitigation measures identified in the FEIR and adopted by PV Water avoid or substantially lessen the significant effects to a less-than-significant level. As provided in Section 15093 of the CEQA *Guidelines,* PV Water is balancing the economic, legal, social, technological, or other benefits of the Project against the unavoidable environmental effects. With regard to those unavoidable effects, PV Water is adopting a Statement of Overriding Considerations, which is set forth in Exhibit B to Resolution 2019-18.

PV Water also adopts a Mitigation Monitoring and Reporting Plan (MMRP) for the Project. PV Water finds that the MMRP, which is set forth in Exhibit C to Resolution 2019-18, meets the requirements of Public Resources Code Section 21081.6 by providing for the implementation and monitoring of measures intended to mitigate potentially significant effects of the Project. Pursuant to Public Resources Code Section 21082.1(c)(3), PV Water finds that the FEIR reflects PV Water's independent judgment as the Lead Agency for the Project. The Findings of Fact are organized into the following sections:

- Section 1: Introduction.
- Section 2: Project Description and Objectives.
- Section 3: Findings Regarding Independent Review and Judgment

- Section 4: Less-Than-Significant Environmental Effects; Mitigation Incorporated.
- Section 5: Significant and Unavoidable Environmental Effects.
- Section 6: Findings Regarding Project Alternatives.

1.2 Statutory Requirements

CEQA, and particularly the CEQA *Guidelines*, require that:

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identified one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

   a. Changes or alterations have been required in, or incorporated into the project, which avoid of substantially lessen the significant environmental effect as identified in the final EIR.

   b. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

   c. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures of project alternatives identified in the final EIR.

For those significant effects that PV Water determines are not feasible to mitigate to a less-than-significant level, PV Water is required to find that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment (see Public Resource Code Section 21081(b)). The CEQA *Guidelines* state in Section 15093 that:

> "If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable."

1.3 Records of Proceedings

For purposes of CEQA and these Findings of Fact, the records of proceedings for PV Water's decisions on the Project consist of: (a) matters of common knowledge to PV Water, including, but not limited to, federal, state and local laws and regulations and policies, (b) the following documents, which are in custody of the Pajaro Valley Water Management Agency, 36 Brennan Street, Watsonville, CA 95076:

- The Final Environmental Impact Report for the College Lake Integrated Resources Management Project (FEIR);

- Notice of Preparation (NOP) and other public notices issued by PV Water in conjunction with the Project;
- The Draft Environmental Impact Report for the College Lake Integrated Resources Management Project (DEIR);
- All testimony, documentary evidence, and all correspondence submitted in response to the DEIR by agencies or members of the public during the public comment period on the DEIR and responses to those comments (FEIR Chapter 3);
- MMRP;
- All findings, statements of overriding consideration, and resolutions adopted by PV Water in connect with the Project, and all documents cited or referred to therein;
- All final technical reports and addenda, studies, memoranda, maps, correspondence and all planning documents prepared by PV Water or PV Water's consultants relating to the Project;
- All documents submitted to PV Water by agencies or members of the public in connect with development of the Project;
- All actions of the Board of Directors with Respect to the Project;
- All references included in the DEIR;
- Applicable local general plans, coastal plans, and related environmental analyses;
- Meeting agenda, minutes and staff reports of PV Water; and
- Other documents regarding coordination and consultation with the public and public agencies and other documents designated by PV Water.

1.4 Identification of Environmental Setting for Use in Determining Significance of Effects of the Project

The CEQA *Guidelines* require environmental impact reports to include a description of the physical environmental conditions in the vicinity of the project and that "[t]his environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (CEQA Guidelines, Section 15125, subd. (a).)

Consistent with the CEQA *Guidelines*, the environmental setting discussion for each environmental topic describes the baseline physical environmental conditions at each of the Project components that could have associated physical environmental impacts. For purposes of the analyses in the DEIR, baseline conditions are those that existed at the time that the NOP was published in accordance with CEQA *Guidelines* Section

15126.2 (November 2017). With some environmental resources, such as hydrology, the baseline considered was equivalent to anticipated conditions at various times of the year due to the seasonal and annual fluctuations in the conditions of various resources. This anticipated condition was based on review of historical data and information about the conditions of the resource.

The analyses of potential impacts contained in the DEIR are based primarily on one of two factors, depending on the potential primary cause of an impact. For example, impacts related to geology and soils, hydrological changes and water quality, cultural resources, and biological resources are analyzed primarily on the basis of the location and acreage of ground disturbance and other direct changes to those resources that are anticipated to occur as a result of construction and implementation of the Project. Impacts related to aesthetics, traffic, air quality, noise, utilities, and public services are analyzed primarily on the basis of potential impacts to people and sensitive receptors in the vicinity or region of the Project.

Impacts are typically evaluated in terms of changes that would be attributed to construction and implementation of Project components as compared to existing conditions as well as, where appropriate, relative to conditions that would exist without implementation of the Project in the future.

2. Project Description and Objectives

2.1 Project Description

PV Water was formed in 1984 by the Pajaro Valley Water Management Agency Act, for the primary purpose of managing groundwater resources and supplemental water supplies in its service area. PV Water's service area encompasses approximately 70,000 acres in the Pajaro Valley, located in southern Santa Cruz County, northern Monterey County, and a small portion of San Benito County. Throughout much of the Pajaro Valley Groundwater Basin, groundwater levels have declined as a result of long-term groundwater overdraft. Overdraft conditions result in seawater intrusion, groundwater quality degradation, and groundwater storage depletion. PV Water's objective is to manage local groundwater resources to reduce, and eventually halt, long-term overdraft of the groundwater basin while ensuring sufficient water supplies for present and anticipated needs. To achieve this objective, PV Water has prepared and periodically updates a basin-wide groundwater management plan, the Basin Management Plan (BMP), which serves as the guiding document for its major projects and programs. The Board most recently approved and certified the *Final Environmental Impact Report for the Basin Management Plan Update* (State Clearinghouse #2000062030, referred to herein as 2014 BMP Update PEIR), which evaluated the environmental impacts of seven components at a program level of detail, including a version of the Project.

The primary purposes of the Project are to help balance the groundwater basin, prevent further seawater intrusion, and meet water supply needs in PV Water's service area by developing College Lake as a water storage and supply source. The Project is located in the City of Watsonville and Unincorporated Santa Cruz County. Project components

include a weir structure and intake pump station, a water treatment plant (WTP), and an approximately 5.5-mile-long pipeline to convey water from the WTP to the City of Watsonville Recycled Water Facility and to PV Water's Coastal Distribution System. On average, the Project would generally supply approximately 1,800 to 2,300 acre-feet per year of water to growers in the Pajaro Valley. Project construction is estimated to occur over approximately 18 months beginning in 2022.

2.2 Project Need and Objectives

Land use within the Pajaro Valley is primarily agricultural, with crop values estimated at approximately $900,000,000 annually.[1] Approximately 95 percent of the water used in the Pajaro Valley is pumped groundwater. In the Pajaro Valley Groundwater Basin, groundwater levels have declined as a result of long-term groundwater overdraft. These overdraft conditions have caused groundwater levels within the basin to drop below sea level, creating a landward pressure gradient that causes seawater to flow inland and mix with fresh groundwater. As seawater encroaches into the fresh groundwater basin, water quality degrades, limiting its use for irrigation and domestic purposes. Intrusion into freshwater aquifers also results in a loss of freshwater storage capacity. Seawater intrusion creates progressive increases in the concentrations of chloride, boron, magnesium, and other constituents in groundwater; chloride is used as an indicator constituent of seawater intrusion. The Project would reduce groundwater overdraft by allowing water to be stored in College Lake during the wet season, and then be pumped out during the irrigation season for agricultural uses.

The following objectives were included in the 2014 BMP Update PEIR:

- Prevent seawater intrusion, long-term groundwater overdraft, land subsidence, and water quality degradation;
- Manage existing and supplemental water supplies to control overdraft and provide for present and future water needs;
- Create a reliable, long-term water supply, which has been identified as an important cornerstone of the long-term economic vitality of the Pajaro Valley;
- Develop water conservation programs; and
- Recommend a program that is cost effective and environmentally sound.

PV Water anticipates that the Project would advance all of these objectives, with the exception of development of water conservation programs.[2]

[1] PV Water, *Final Basin Management Plan Update*, February 2014.
[2] While the Project would conserve groundwater by creating a reliable source of surface water to offset groundwater pumping, PV Water's water conservation programs are designed to reduce water use in the Pajaro Valley. Information on PV Water's water conservation programs is available at https://www.pvwater.org/.

The Sustainable Groundwater Management Act (SGMA) was signed into law after PV Water's approval of the 2014 BMP Update PEIR. In light of the BMP objectives, the requirements of SGMA, and the mitigation measures adopted as part of its approval of the BMP Update, the Board adopted the following project-specific objectives for the College Lake Project on December 20, 2017:

- Design and implement reliable facilities to help achieve sustainable groundwater management of the Pajaro Valley Groundwater Subbasin by 2040, taking into account potential future hydrologic changes, including those associated with climate change.
- Substantially contribute to the Pajaro Valley's water supply needs in a timely manner, consistent with the Basin Management Plan Update implementation goals.
- Use locally controlled surface water for agricultural purposes to offset groundwater pumping in a manner consistent with habitat preservation and enhancement, and in coordination with resource agencies, the public, and other stakeholders.
- Make efficient use of, and leverage federal, state, and local investments in, existing Agency infrastructure.

3. Findings Regarding Independent Review and Judgment

Each member of the Board was provided with a copy of the DEIR for the College Lake Project in April 2019 and a complete copy of the FEIR for the Project in October 2019. The Board hereby finds that the EIR has been completed in accordance with CEQA; that the EIR reflects the Board's own independent judgment; and, that the Board has independently reviewed and considered the EIR prior to taking any final action with respect to the Project.

4. Less-Than-Significant Environmental Effects; Mitigation Incorporated

PV Water finds that as discussed below, the following potentially significant impacts would be reduced to less-than-significant levels with the implementation of the corresponding mitigation measures for the Project.

4.1 Surface Water, Groundwater, and Water Quality

1. Impact HYD-1: Project construction could violate water quality standards and/or waste discharge requirements, or otherwise substantially degrade surface or ground water quality.

The Project would demolish existing facilities and construct new facilities. Associated activities would include earthmoving such as excavation, grading, and soil stockpiling, which could result in soil erosion and subsequent discharge of sediments to nearby surface waters or drainages. Construction staging areas could also disturb soils in these areas. In addition, sediment or other water pollutants originating from construction equipment, existing contaminated groundwater, or surrounding disturbed

land could be released with discharges from dewatering, degrading surface water quality. The Project would install the College Lake pipeline across Pinto Creek using open trench installation techniques. If open trench work proceeds during periods when water is present in Pinto Creek, construction activities could adversely affect water quality by increasing turbidity and potentially releasing fuels and other chemicals associated with construction equipment, a potentially significant impact.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to violation of water quality standards and/or waste discharge requirements, or otherwise substantial degradation of surface or ground water quality.

Mitigation Measure BR-1b: Frac-out Contingency Plan (Refer to Impact BR-1)

Mitigation Measure HYD-1: Implement Dewatering Best Management Practices for In-Water Construction. For in-water construction during pipeline installation activities, PV Water shall require its contractor(s) to prepare a Dewatering Plan. The Dewatering Plan shall identify best management practices that ensure construction activities at Salsipuedes and Pinto Creeks meet water quality objectives. This work shall be timed to take place as flows are receding and only after instream measures to reduce downstream turbidity are in place. In addition, PV Water shall require its contractors to implement the measures below, and water quality protection measures required by the RWQCB.

1. All work performed in-water shall be completed in a manner that meets the water quality objectives to ensure the protection of beneficial uses as specified in the 2017 Basin Plan.

2. All dewatering and diversion methods shall be installed such that natural flow is maintained upstream and downstream of the Project area

3. Any temporary dams or diversion shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the Project area.

4. Screened pumps shall be used in accordance with CDFW's fish screening criteria and in accordance with the NMFS Fish Screening Criteria for Anadromous Salmonids and the Addendum for Juvenile Fish Screen Criteria for Pump Intakes.

5. Cofferdams shall remain in place and functional throughout the in-stream construction.

6. Disturbance of protected riparian vegetation shall be limited or avoided entirely.

Compliance with the Construction General Permit (CGP, as described in the FEIR), including preparation and implementation of the Stormwater Pollution Prevention Plan and associated best management practices as well as inspection and reporting, and implementation of Mitigation Measures BR-1b and HYD-1, would effectively reduce degradation of surface water and groundwater quality to a less-than-significant level. These measures are designed to ensure compliance with applicable standards, regulations, and requirements that protect water quality. Adherence to these requirements would also effectively reduce potential impacts associated with spills or leaks of hazardous materials and other releases to surface water during construction and thus impacts would be less than significant with mitigation.

2. Impact HYD-2: Project operations could adversely affect surface water quality.

Project operations could alter College Lake water quality by reducing Pinto Creek inflow to the lake, by increasing the period during which the lakebed is inundated, and by altering land use in the lake bed. Water quality of Pinto Creek and downstream water bodies could also be affected by College Lake pipeline scour.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to surface water quality.

Mitigation Measure HYD-2a: Water Quality Adaptive Management for College Lake. To learn about potential impacts of the Project on College Lake water quality and the quality of downstream water bodies, PV Water shall monitor College Lake water for indications of Cyanobacteria blooms. When the proposed weir crest is elevated to 62.5 feet NAVD88, PV Water shall monitor College Lake water temperature within the water column to establish whether a thermocline develops. PV Water shall use results of this monitoring to support the development of the Adaptive Management Plan (refer to Section 2.7) that establishes management actions to minimize the conditions that can contribute to algal blooms, including cyanobacteria blooms, such that this impact is mitigated.

Mitigation Measure HYD-2b: Scour Analysis for Pinto Creek Crossing. To reduce Project impacts on erosion and sedimentation, PV Water shall evaluate the potential for scour and channel bank erosion due to the Pinto Creek pipeline crossing. The analysis shall recommend a design depth for the pipeline crossing that avoids scour, estimated using standard engineering methods. PV Water shall implement the pipeline depth that avoids scour in final project design.

Mitigation Measures HYD-2a and HYD-2b address the Project's potential impacts by ensuring adaptive management that is responsive to potential changes in College Lake conditions, including algal blooms and temperature changes, and by evaluating the potential for scour and channel bank erosion that could affect surface water

quality. The mitigation measures ensure that conditions are monitored and actions are taken to maintain surface water quality. With implementation of the mitigation measures and regulatory agency permit requirements, impacts of the Project on surface water quality would be less than significant.

3. Impact HYD-4: The Project would alter drainage patterns, changing erosion and sedimentation patterns in College Lake and downstream water bodies.

If the College Lake pipeline is not buried to sufficient depths beneath Pinto Creek, additional scour of the Pinto Creek channel could result, a potentially significant impact.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to erosion and sedimentation.

Mitigation Measure HYD-2b: Scour Analysis for Pinto Creek Crossing. (Refer to Impact HYD-2)

Implementation of Mitigation Measure HYD-2b would address the potential impact to Pinto Creek channel by requiring final pipeline design to be based upon more detailed project information and a scour analysis. The impact would be less than significant with mitigation

4. Impact HYD-5: The Project would not substantially increase the rate or amount of surface runoff, but would impede or redirect flood flows and alter the seasonality of surface runoff.

While the Project would not contribute discharge to Salsipuedes Creek during late summer and fall, PV Water may occasionally pump water out of College Lake during the summer or fall. The pumping rate is assumed to be the same as the proposed water treatment processing rate (a production rate of 9,000 gallons per minute or 20 cfs). While this discharge is lower than the maximum rate of discharge under existing conditions, if pumped flows occur when the WSE is sufficiently elevated in Pajaro Lagoon, it could result in new flooding at Pajaro Dunes.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to surface runoff.

Mitigation Measure HYD-3: Avoid Flooding at Pajaro Dunes During Pumped Flow Events. PV Water shall not pump flow exceeding fish passage requirements

into Salsipuedes Creek until receiving approval from the Santa Cruz County Flood Control District indicating that pumped flow can occur without lagoon breaching, based on current water surface elevation conditions in Pajaro Lagoon. The threshold water surface elevations described in the Santa Cruz County Flood Control District current lagoon breaching permits from the U.S. Army Corps of Engineers, the Central Coast Regional Water Quality Control Board, and the California Department of Fish and Wildlife will be used to assess whether pumped flows would require lagoon breaching. PV Water pumped flows shall not result in lagoon water surface elevations exceeding the threshold elevation identified in the lagoon breaching permits.

Implementation of Mitigation Measure HYD-3 would ensure that pumped flows do not result in new flood hazards or require mechanical lagoon breaching.

5. Impact HYD-6: The Project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to obstructing implementation of a water quality control plan or sustainable groundwater management plan.

Mitigation Measure BR-1b: Frac-out Contingency Plan. (Refer to Impact BR-1)

Mitigation Measure HYD-1: Implement Dewatering Best Management Practices for In-Water Construction. (Refer to Impact HYD-1)

Mitigation Measure HYD-2a: Water Quality Adaptive Management for College Lake. (Refer to Impact HYD-2)

Mitigation Measure HYD-2b: Scour Analysis for Pinto Creek Crossing. (Refer to Impact HYD-2)

PV Water elected to become the exclusive groundwater sustainability agency for the Pajaro Valley Groundwater Basin under the SGMA in 2015. With adoption of its first Basin Management Plan in 1994, PV Water has been implementing projects and programs designed to reduce overdraft, halt seawater intrusion, and improve and protect water quality within the Pajaro Valley Groundwater Basin for over 20 years. The Project is one of the potential projects included in the most recent, updated Basin Management Plan which would help meet the goals of stopping seawater intrusion and basin overdraft. Implementation of the Project would reduce overdraft conditions and seawater intrusion in the Pajaro Valley Groundwater Basin. Impacts on sustainable groundwater management would be beneficial, and the project would not conflict with implementation of a sustainable groundwater management plan.

4.2 Biological Resources

1. Impact BR-1: Construction of Project components could result in a substantial adverse effect on special-status species.

While full implementation of the Project would reduce an existing adverse effect on steelhead (whereby upon lowering of the College Lake water surface elevation in the spring, juvenile steelhead become trapped immediately upstream of the existing weir and exposed to unfavorable conditions), College Lake would still need to be drained prior to construction of the proposed weir structure in a manner similar to existing RD 2049 operations, potentially resulting in similar adverse effects to steelhead and other special-status fish species, a significant impact.

In addition, one section of new pipeline for the Project would be installed beneath Corralitos Creek using horizontal directional drilling (HDD). Although not anticipated, there is potential for frac-outs to occur using HDD. If a frac-out occurs, bentonite slurry could be released into the Corralitos Creek, which could degrade water quality and adversely affect special-status species and WPT habitat and/or individuals by increasing suspended sediments, a significant impact.

Installation of the pipeline through the Pinto Creek drainage ditch, including installation of temporary cofferdams and dewatering if needed, would temporarily impact approximately 100 square feet of potential CRF and WPT aquatic habitat. Temporary and permanent loss of CRF and WPT habitat would be significant.

Bats, including special-status bats such as western red bat, have potential to roost in trees in riparian areas in or around the Project area. Roosting bats could be disturbed, killed, or injured by tree removal activity if present in construction areas. Noise or construction activities near an active bat roost could disrupt breeding or roosting, a potentially significant impact.

The San Francisco dusky-footed woodrat has potential to occur within the Project area at Salsipuedes Creek during removal of the existing weir structure and pump station, and installation of the proposed weir structure and pump station. If woodrat nests are present within the construction area, individual woodrats could be injured or killed by construction equipment, a potentially significant impact.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to special-status species.

Mitigation Measure BR-1a: Fish Relocations. Prior to, or concurrent with, draining of College Lake and/or dewatering of the construction site, special-status and other native fish species shall be captured and relocated by a qualified fisheries biologist.

The following measures shall be taken to minimize harm and mortality to steelhead and other native fish resulting from fish relocation and dewatering activities:

1) Fish relocation shall be performed by a qualified fisheries biologist, with all necessary state and federal authorizations. Captured fish shall be moved to the nearest appropriate site outside of the work area. A record of relocation activities shall be maintained and include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the Project site, and the number and species of fish captured and relocated;

2) Electrofishing shall be conducted by properly trained personnel following *NOAA Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act*, June 2000.

3) Prior to capturing fish, the most appropriate release location(s) shall be determined.

4) The most efficient method for capturing fish shall be determined by the biologist. Complex stream habitat generally requires the use of electrofishing equipment, whereas in outlet pools, fish may be concentrated by pumping-down the pool and then seining or dip-netting fish.

5) Handling of salmonids shall be minimized. However, when handling is necessary, hands or nets shall be wetted prior to touching fish.

6) Captured fish shall be held in cool, shaded, aerated water in a container with a lid. Aeration shall be provided with a battery-powered external bubbler. Fish shall be protected from jostling and noise, and shall not be removed from this container until time of release.

7) Air and water temperatures shall be measured periodically. A thermometer shall be placed in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature. If water temperature reaches or exceeds 18 degrees Celsius, fish shall be released and rescue operations ceased, if feasible.

8) Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year fish from larger age-classes to avoid predation. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.

Species and year-class of fish shall be visually estimated at time of release. The number of fish captured shall be counted and recorded. Anesthetization or measuring fish shall be avoided unless requested by appropriate resource agencies (NMFS, CDFW).

Fish relocation activities are typically restricted to the period of June 15 through November 1. However, draining of College Lake may have to commence prior to

June 1 to ensure the lake is fully drained prior to the start of construction. If lake draining commences prior to June 1 (as it regularly does under existing conditions), fish relocations would be timed accordingly. Given that steelhead present at the time of draining are likely to be smolts attempting to reach the ocean, pre-June 1 relocations concurrent with lake draining would ensure suitable downstream passage conditions and timing for relocated smolts.

Mitigation Measure BR-1b: Frac-out Contingency Plan. If HDD installation is implemented, PV Water shall require the contractor to retain a licensed geotechnical engineer to develop a Frac-out Contingency Plan. PV Water would submit the Frac-out Contingency Plan to the appropriate resource agencies (CDFW, RWQCB, USACE, USFWS, and NMFS) for review prior to the start of construction of any pipeline that would use HDD installation to avoid surface waters. The Frac-out Contingency Plan shall be implemented where HDD installation under a waterway will occur to avoid, minimize, or mitigate for potential Project impacts during HDD installation, as specified in the Frac-out Contingency Plan. The Frac-out Contingency Plan shall include, at a minimum:

1) Measures describing training of construction personnel about monitoring procedures, equipment, materials and procedures in place for the prevention, containment, clean-up (such as creating a containment area and using a pump, using a vacuum truck, etc.), and disposal of released bentonite slurry, and agency notification protocols;

2) Methods for preventing frac-out including maintaining pressure in the borehole to avoid exceeding the strength of the overlying soil.

3) Methods for detecting an accidental release of bentonite slurry that include: (a) monitoring by a minimum of one biological monitor throughout drilling operations to ensure swift response if a frac-out occurs; (b) continuous monitoring of drilling pressures to ensure they do not exceed those needed to penetrate the formation; (c) continuous monitoring of slurry returns at the exit and entry pits to determine if slurry circulation has been lost; and (d) continuous monitoring by spotters to follow the progress of the drill bit during the pilot hole operation, and reaming and pull back operations.

4) Protocols that the contractor would follow if there is a loss of circulation or other indicator of a release of slurry.

5) Cleanup and disposal procedures and equipment the contractor would use if a frac-out occurs.

6) If a frac-out occurs, the contractor shall immediately halt work, implement the measures outlined in Item 5 of the Frac-out Contingency Plan to contain, clean-up, and dispose of the bentonite slurry, and, if the frac-out occurs in the water channel, notify and consult with the staffs of the agencies listed above before HDD activities can begin again.

PV Water shall require the contractor to implement Frac-out Contingency Plan to ensure that measures are implemented to prevent frac-out and if a frac-out occurs, implement measures to contain, clean-up, and dispose of the bentonite slurry.

Mitigation Measure BIO-1c (Revised). Where construction impacts ~~t~~on mixed riparian or willow riparian forest occur, revegetation and restoration measures will be developed as part of a revegetation plan approved by CDFW, RWQCB, and if applicable, USACE and/or California Coastal Commission, pursuant to regulatory agency permitting. The revegetation plan will include specific plans for the revegetation of impacted riparian forest, and for restoration of nearby creek riparian habitat, as appropriate. Upon approval by applicable agencies, PV Water may choose to coordinate with the Natural Resources Conservation Service and the Santa Cruz County Resource Conservation District (RCD) to develop and implement the required riparian revegetation, including providing funds to the RCD for their implementation of the revegetation. Revegetation measures will include the use of locally obtained plant materials, detailed descriptions of installation methods, after-installation care, weed control measures, success criteria, and corrective measures if the success criteria are not met. Temporarily impacted areas will be restored to pre-construction conditions with equivalent or greater habitat quality. Revegetation will include a 3:1 replacement ratio of the acreage of riparian habitat lost and for all trees lost as result of the Project to account for the reduced habitat values of smaller trees compared with mature vegetation. Success criteria for replanting will be less than 20 percent mortality of individual species annually for 5 years. Replanting will be conducted each year that plantings exceed 20 percent mortality, such that 80 percent plant survival is maintained each year of the 5-year monitoring period. Cover provided by invasive, non-native plant species shall not exceed 5 percent during each year of the 5-year monitoring period.

Mitigation Measure BIO-1d (Revised). Where construction impacts ton open water (creeks, streams, jurisdictional ditches), seasonal wetlands, or coastal freshwater marsh occurs, revegetation and restoration measures will be developed as part of a revegetation plan approved by CDFW, RWQCB, USACE, California Coastal Commission, and/or Santa Cruz County, pursuant to regulatory agency permitting. Upon approval by applicable agencies, PV Water may choose to coordinate with the Natural Resources Conservation Service and the Santa Cruz County RCD to develop and implement the required wetland revegetation and restoration, including providing funds to the RCD for their implementation of the revegetation and restoration. The revegetation plan will include specific plans for the revegetation of impacted coastal marsh wetlands, and for restoration of nearby wetland habitat, as appropriate. Revegetation measures will include the use of locally obtained plant materials, detailed descriptions of installation methods, after-installation care, weed control measures, success criteria, and corrective measures if the success criteria are not met. Temporarily impacted areas will be restored to pre-construction conditions with equivalent or greater habitat quality. Revegetation will include a 3:1 replacement ratio (or an equivalent habitat replacement strategy as agreed upon by PV Water and regulatory agencies) for impacted wetlands. If natural recovery is a viable strategy, then a wetland plant cover exceeding 50 percent ~~%~~ should be attained after two

growing seasons. Mitigation may occur via restoration, creation, or preservation of wetlands or waters. Mitigation will occur at a site acceptable to permitting agencies and pursuant to the Project's permit requirements. If the compensatory mitigation includes restoration, enhancement, or creation of wetlands or waters, a qualified biologist will monitor the designated wetland mitigation area for a minimum of five years to ascertain if the wetland mitigation is successful. Annual reports will be submitted to permitting agencies by December 31 of each monitoring year, describing the results of the monitoring and any remedial actions needed to achieve a minimum 3:1 habitat replacement ratio or equivalent for permanent impacts on wetlands.

Mitigation Measure BR-1c: Avoid and Minimize Impacts on Special-status Bat Species. A qualified biologist who is experienced with bat surveying techniques, behavior, roosting habitat, and identification of local bat species shall be consulted prior to initiation of construction activities to conduct a preconstruction habitat assessment to characterize potential bat habitat and identify active roost sites. The preconstruction habitat assessment shall be conducted within 100 feet of construction activities conducted in and around riparian habitat.

Should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in trees and/or structures to be disturbed under the Project, the following measures shall be implemented:

1. Removal or disturbance of trees or structures (e.g. the existing weir and intake pump station) identified as potential bat roosting habitat or active roosts shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These dates avoid bat maternity roosting season (approximately April 15 to August 31) and periods of winter torpor (approximately October 15 to February 28).

2. If removal or disturbance of trees and structures identified as potential bat roosting habitat or active roosts during the periods when bats are active is not feasible, a qualified biologist would conduct pre-construction surveys within 14 days prior to disturbance to further evaluate bat activity within the potential habitat or roost site.

    a. If active bat roosts are not identified in potential habitat during preconstruction surveys, no further action is required prior to removal of- or disturbance to trees and structures within the preconstruction survey area.

    b. If active bat roosts or evidence of roosting is identified during pre-construction surveys, the qualified biologist shall determine, if possible, the type of roost and species.

        i. If special-status bat species or maternity or hibernation roosts are detected during these surveys, appropriate species- and roost-specific avoidance and protection measures shall be developed by the qualified biologist in coordination with CDFW. Such measures may include postponing the

removal of structures or trees, or establishing exclusionary work buffers while the roost is active. A minimum 100-foot no disturbance buffer shall be established around special-status species, maternity, or hibernation roosts until the qualified biologist determines they are no longer active. The size of the no-disturbance buffer may be adjusted by the qualified biologist, in coordination with CDFW, depending on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site, and if construction would not alter the behavior of the adult or young in a way that would cause injury or death to those individuals.

Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist.

ii. If a non-maternity or hibernation roost (e.g., bachelor daytime roost) is identified, disturbance to- or removal of trees or structures may occur under the supervision of a qualified biologist as described under measure 3).

3. The qualified biologist shall be present during tree and structure disturbance or removal if active non-maternity or hibernation bat roosts or potential roosting habitat are present. Trees and structures with active non-maternity or hibernation roosts or potential habitat shall be disturbed or removed only under clear weather conditions when precipitation is not forecast for three days and when nighttime temperatures are at least 50 degrees Fahrenheit, and when wind speeds are less than 15 mph.

   a. Trimming or removal of trees with active (non-maternity or hibernation) or potentially active roost sites shall follow a two-step removal process:

      i. On the first day of tree removal and under supervision of the qualified biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using hand tools (e.g., chainsaws).

      ii. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be removed, either using hand tools or other equipment (e.g. excavator or backhoe).

      iii. All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.

   b. Disturbance to or removal of structures containing or suspected to contain active bat (non-maternity or hibernation) or potentially active bat roosts shall be done in the evening and after bats have emerged from the roost to forage. Structures shall be partially dismantled to significantly change the roost

conditions, causing bats to abandon and not return to the roost. Removal would be completed the subsequent day

4. Bat roosts that begin during construction are presumed to be unaffected as long as a similar type of construction continues, and no buffer would be necessary. Direct impacts on bat roosts or take of individual bats would be avoided

Mitigation Measure BR-1d: Avoidance and Minimization Measures for San Francisco Dusky-Footed Woodrat. The following measures shall be implemented to avoid and minimize impacts on San Francisco dusky-footed woodrat:

1. A qualified wildlife biologist shall conduct preconstruction surveys for San Francisco dusky-footed woodrat in the Salsipuedes Creek riparian corridor within the existing and proposed weir structure and intake pump station work area. The surveys shall be conducted within 14 days prior to the start of construction in suitable habitat and shall identify any woodrat nests located within 50 feet of anticipated construction disturbance areas.

2. If woodrat nests are found during the preconstruction surveys, the wildlife biologist shall conduct additional surveys throughout the duration of construction activities at the Project site to identify any newly constructed woodrat nests.

3. If nests are observed outside of the construction area, the qualified biologist shall demarcate a minimum 50-foot buffer area with orange construction fencing and require that all construction activities and disturbance remain outside of the fencing.

4. Active woodrat nests located within the anticipated construction disturbance areas shall be relocated. Nests shall be relocated outside of the peak breeding season as feasible to minimize disturbance to young woodrats. Woodrat breeding season is December to September with peak breeding in mid-spring. Relocation of woodrats and/or their nests shall be conducted by the qualified wildlife biologist as follows:

    a. Clear understory vegetation from around the nest using hand tools.

    b. After all vegetative cover has been cleared around the nest, the biologist shall gently disturb the nest to encourage the woodrat(s) to abandon the nest and seek cover in adjacent habitat.

    c. Once the woodrats have left the nest, the biologist shall carefully relocate the nest sticks within 50 feet of the original nest location and map the location of the original nest location and relocated nest location on an aerial image of the Project site. The location of the relocated nest will offer a mix of sun and shade and be no closer than 20 feet from an existing SFDW nest. Relocation areas will be as close as possible to the original locations in similar habitat and contain biologically-suitable habitat features (e.g., stands of poison oak, coast

live oaks, and dense native brush). If multiple nests are relocated, the stick piles shall be placed at least 20 feet from one another

d. The qualified biologist supervising woodrat nest relocation shall ensure potential health hazards to the biologists moving nests are addressed to minimize the risk of contracting diseases associated with woodrats and woodrat nests. These include hantavirus, Lyme disease, and plague. The biologists that relocate nests shall take the following precautionary safety measures:

   i. Wear a Cal/OSHA-certified facial respirator to reduce inhalation of potential disease causing organisms.

   ii. Wear a white Tyvec protective suit to provide a barrier for ticks and fleas and facilitate their detection and removal and use gloves.

e. If young woodrats are encountered during dismantling of the nest, nest material shall be replaced and a 50-foot no-disturbance buffer shall be established around the active nest. The buffer shall remain in place until the young woodrats have matured enough to disperse on their own accord and the nest is no longer active. Nesting substrate shall then be collected and relocated to suitable habitat outside of the Project area.

These mitigation measures, collectively, would take actions to avoid and/or minimize impacts to biological resources. For example, Mitigation Measure BR-1a would minimize harm and mortality to steelhead and other native fish resulting from lake draining and construction site dewatering by capturing and relocating the fish to avoid the impact. Mitigation Measure BR-1b ensures that a frac-out contingency plan will be in place, with appropriate benchmark standards, for the implementation of measures to contain and clean-up any frac-outs in waterways to minimize impacts of frac-outs on special-status species and their habitat. Revised Mitigation Measures BIO-1c and BIO-1d would reduce impacts to less than significant by ensuring that temporarily impacted habitat is restored to pre-construction conditions and providing compensation for permanent loss of potential habitat. Implementation of Mitigation Measure BR-1c would reduce potential impacts to bats to less than significant by requiring the identification and avoidance of active bat roost sites and the implementation of avoidance and minimization measures when non-maternity or hibernation bat roosts cannot be avoided. Implementation of Mitigation Measure BR-1d would reduce potential impacts to less than significant by requiring pre-construction surveys for San Francisco dusky-footed woodrat, avoidance of nests, and relocation of nests if they cannot be avoided.

2. Impact BR-2: Construction of Project components would result in a substantial adverse effect on riparian habitat or other sensitive natural community or on

state or federally protected wetlands or waters through direct removal, filling, hydrological interruption, or other means.

Sensitive natural communities within or adjacent to Project construction areas could be temporarily or permanently impacted during Project construction. Project construction activities that could impact these sensitive features are described in Impact BR-1. In addition, installation of the pipeline through the Pinto Creek drainage ditch including installation of temporary cofferdams and dewatering if needed, would temporarily impact approximately 100 square feet of Pinto Creek. Temporary and permanent loss of a sensitive natural community is a potentially significant impact. Indirect impacts on sensitive natural communities outside the Project footprint could occur if construction activities inadvertently extend beyond the designated construction work area, if sediment is discharged downstream as a result of the installation of temporary cofferdams and dewatering, and/or if trash and debris is left in the features following construction. Other indirect impacts include sedimentation as a result of increased soil erosion from grading or trenching activities and degradation of water quality from pollutants (e.g., oil, hydraulic fluid) that are conveyed by surface water runoff from the construction site to offsite sensitive natural communities. These indirect impacts would be potentially significant.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to riparian habitat or other sensitive natural community.

Mitigation Measure BR-1b: Frac-out Contingency Plan (Refer to Impact BR-1)

Mitigation Measure BIO-1c (Revised) (Refer to Impact BR-1)

Mitigation Measure BIO-1d (Revised) (Refer to Impact BR-1)

Mitigation Measure BIO-1e (Revised). Where construction and/or facilities are placed within a riparian or wetland development setback area (as defined in the Santa Cruz County Municipal Code), indirect impacts ~~to~~on adjacent riparian and wetland vegetation will be minimized. Where feasible, buffer plantings of native trees and shrubs will be installed between the facility and the adjacent wetland or riparian resource to provide a vegetated buffer. A buffer planting plan will be prepared as part of a revegetation plan approved by CDFW, RWQCB, USACE, and/or California Coastal Commission, pursuant to regulatory agency permitting. The buffer planting plan will include specific revegetation measures, including the use of locally obtained plant materials, detailed descriptions of installation methods, after-installation care, weed control measures, success criteria, and corrective measures if the success criteria are not met.

Compliance with the adopted Mitigation Measures BIO-1b and HWQ-1, implementation of revised adopted Mitigation Measures BIO-1c, BIO-1d, and BIO-1e, and implementation of Mitigation Measure BR-1b would effectively reduce and mitigate impacts on sensitive natural communities, including potentially jurisdictional wetlands and waters, to a less-than-significant level. Minimization of temporary and permanent impacts on sensitive natural communities (including potentially jurisdictional features regulated by the USACE, CDFW, and RWQCB) would be achieved through implementation of best management practices to protect water quality, and a Frac-Out Contingency Plan to protect Corralitos Creek. Mitigation for temporary and permanent impacts on sensitive natural communities would be achieved through on-site restoration and revegetation of areas temporarily impacted by construction, and off-site restoration and wetland creation to replace the area of sensitive natural communities that would be permanently lost. On and off-site revegetation would be carried out at a 3:1 replacement ratio, and according to a revegetation plan with stated success criteria. Success would be tracked and assessed through monitoring and reporting.

3. Impact BR-5: Project operations could result in a substantial adverse effect on terrestrial special-status species.

Project maintenance activities would be conducted within College Lake as needed to meet Project objectives. Maintenance activities would be implemented during the dry season to maintain areas below 59 feet NAVD88 as open water during the wet season. If individual CRF or WPT are present within maintenance work areas they could be injured or killed by maintenance equipment, which would be a significant impact. Furthermore, maintenance activities within College Lake may occur during the breeding season for birds protected under the MBTA or Fish and Game Code. Vegetation or debris removal could result in direct impacts on breeding birds through direct removal of birds or their nests, if present. Nesting birds may also be disrupted by maintenance equipment noise and activities, which could result in nest abandonment. These impacts are potentially significant.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to terrestrial special-status species.

Mitigation Measure BIO-2i: Nesting Bird Surveys (Revised). Prior to any project construction or maintenance activities, the project proponent will take the following steps to avoid direct losses of nests, eggs, and nestlings and indirect impacts ton avian breeding success:

- If construction or maintenance activities occur only during the non-breeding season, between August 31 and February 1, no surveys will be required

- During the breeding bird season (February 1 through August 31), a qualified biologist will survey construction or maintenance areas in the vicinity of the Project site for nesting raptors and passerine birds not more than 14 days prior to any ground-disturbing activity or vegetation removal.

- Surveys will include all potential habitats within 500 feet (for raptors) of activities and all onsite vegetation including bare ground within 250 feet of activities (for all other species).

- If results are positive for nesting birds, avoidance procedures will be adopted, if necessary, on a case-by-case basis. These may include implementation of buffer areas (minimum 50-foot buffer for passerines and 250-foot minimum buffer for raptors) or seasonal avoidance.

Mitigation Measure BIO-2j: CRFT (Revised). The following measures for avoidance and minimization of adverse impacts ton California Red-Legged Frog (Rana draytonii) (CRF) during construction and maintenance of the Project are those typically employed for construction activities that may result in short-term impacts ton individuals and their habitat. The focus of these measures is on scheduling activities at certain times of year, keeping the disturbance footprint to a minimum, and monitoring. Consultation with the USFWS will be conducted and a Biological Opinion developed for each BMP Update component that requires a USACE Section 404 Wetland Permit.

Ongoing and future CRF studies in the Project area may result in site-specific conditions that would be integrated into the future project-level BMP component designs, permitting and operations. CRF-1 through CRF-9 would apply only to Project locations identified as CRF-habitat.

CRF-1. PV Water will annually submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities would ~~will~~ begin until the Agency receives approval from the Service that the biologist(s) is qualified to conduct the work.

CRF-2. A USFWS -approved biologist will survey the construction or maintenance site 48 hours prior to the onset of activities. If CRF, tadpoles, or eggs are found, the approved biologist will determine the closest appropriate relocation site. The approved biologist will be allowed sufficient time to move them from the work site before work activities begin. Only USFWS -approved biologists will participate in activities associated with the capture, handling, and moving of CRF.

CRF-3. Before any construction or maintenance activities begin on a project, a USFWS -approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the CRF and its habitat, the importance of the CRF and its habitat, general measures that are being implemented to conserve the CRF as they relate to the Project, and the boundaries within which the Project may be accomplished. Brochures, books and briefings may

be used in the training session, provided that a qualified person is on hand to answer any questions.

CRF-4. A USFWS-approved biologist will be present at the construction or maintenance site until such time as all removal of CRF, instruction of workers, and disturbance of habitat have been completed. After this time, the biologist will designate a person to monitor on-site compliance with all minimization measures and any future staff training. The USFWS-approved biologist will ensure that this individual receives training outlined in measure WPT-2 and in the identification of CRF. The monitor and the USFWS-approved biologist will have the authority to stop work if CRF are in harm's way.

CRF-5. The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Routes and boundaries will be clearly demarcated, and these areas will be outside of riparian and wetland areas to the extent practicable.

CRF-6. Construction and maintenance activities will be completed between April 1 and November 1 to the extent practicable. Should the Agency demonstrate a need to conduct activities outside this period, the Agency may conduct such activities after obtaining USFWS approval.

CRF-7. If a construction or maintenance work site is to be temporarily dewatered by pumping, and would take place within or adjacent to suitable CRF habitat, intakes will be completely screened with wire mesh not larger than five millimeters (mm) to prevent CRF from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction or maintenance activities, any barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

CRF-8. The Declining Amphibian Populations Task Force's Fieldwork Code of Practice will be followed to minimize the possible spread of chytrid fungus or other amphibian pathogens and parasites.

CRF-9: Implement Mitigation Measure HWQ-13.10-1 through HWQ-43.10-4 in Section 3.3, Surface Water, Groundwater, and Water.

Mitigation Measure BIO-2k: WPT (Revised). The following measures for avoidance and minimization of adverse impacts ton western pond turtle (*Actinemys marmorata*) (WPT) during construction and maintenance of the Project are those typically employed for construction activities that may result in short-term impacts ton individuals and their habitat. The focus of these measures is on keeping the disturbance footprint to a minimum and aggressive monitoring of WPTs before vegetation removal and during the construction and revegetation phase.

WPT-1. PV Water will annually submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities

will begin until proponents have received approval from CDFW that the biologist(s) is qualified to conduct the work.

WPT-2. A CDFW-approved biologist will survey the work site 48 hours prior to the onset of construction or maintenance activities. If WPT adults or juveniles are found, the approved biologist will determine the closest appropriate relocation site. The approved biologist will be allowed sufficient time to move them from the work site before work activities begin. Only CDFW-approved biologists will participate in activities associated with the capture, handling, and moving of WPT. If WPT eggs or nests are found, no work will be conducted within a 50-foot radius of the nest. Work can resume within the 50-foot radius once the eggs hatch and the juveniles have left the area.

WPT-3. Before any construction or maintenance activities begin on a project, a CDFW-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the WPT and its habitat, the importance of the WPT and its habitat, general measures that are being implemented to conserve the WPT as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

WPT-4. A CDFW-approved biologist will be present at the construction or maintenance site until such time as all removal of WPT, instruction of workers, and disturbance of habitat have been completed.

WPT-5. The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the project plans. Routes and boundaries will be clearly demarcated. Where impacts occur in these staging areas and access routes, restoration will occur as identified in the general best management practices measures above.

The above mitigation measures provide for avoidance of impacts and/or minimization. Specifically, the provide for surveys to determine the location of potentially impacted terrestrial special-status species, and detailed measures to minimize those impacts, including implementation of buffer areas and capture and relocation procedures.

4. Impact BR-6: Project operations could result in a substantial adverse effects special-status fish species.

With implementation of the Project, water would be retained in College Lake for a longer period of time in the spring, summer, and fall compared to existing conditions. An extended inundation season in College Lake could allow populations of non-

native predatory species to increase. This would be a significant impact on S-CCC steelhead.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to special-status fish species.

Mitigation Measure BR-2: Invasive Fish Species Control Plan. PV Water shall develop an Invasive Fish Species Control Plan. PV Water would submit the plan to the appropriate resource agencies (CDFW, USFWS, and NMFS) for approval within one year of Project implementation. The Fish Species Control Plan shall be implemented at College Lake within two years of Project implementation. The Fish Species Control Plan shall include, at a minimum:

1. Measures describing PV Water's methods of draining College Lake to the greatest extent feasible;

2. Measures describing PV Water's methods, equipment, and timing of invasive species eradication efforts to be conducted in association with lake drawdown efforts;

3. Measures describing the frequency at which invasive species control efforts are to be implemented.

Implementation of Mitigation Measure BR-2 would reduce potential impacts caused by invasive species by requiring development and implementation of an invasive fish species control plan that would reduce potential predation upon steelhead.

4.3 Geology and Soils

1. Impact GEO-5: The Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

No unique geologic features would be adversely affected by the Project, but there is a potential to impact a unique paleontological resource or site. The surficial sediments of the Project area are unlikely to have preserved fossils; however, there is a potential for increased sensitivity with depth. The majority of Project-related excavation is relatively shallow. Excavations could extend up to approximately 20 to 25 feet below ground surface at the proposed weir, intake pump station, and WTP, and even greater depths where pits are required for horizontal direction drilling or jack and bore construction along the College Lake pipeline route (shown on Figure 2-3a through 2-3e in Chapter 2, Project Description). These deeper excavations could encounter sediments that contain fossils. Thus the Project could directly or indirectly destroy a unique paleontological resource or site.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to paleontological resources.

Mitigation Measure GEO-1: Inadvertent Discovery of Paleontological Resources. If construction or other Project personnel discover any potential fossils during construction, work at the discovery location shall cease in a 50-foot radius of the discovery until a qualified paleontologist meeting the Society of Vertebrate Paleontology standards has assessed the discovery and made recommendations as to the appropriate treatment. If the find is deemed significant, it shall be salvaged following the standards of the Society of Vertebrate Paleontology and curated with a certified repository. Following a discovery, the qualified paleontologist shall also provide PV Water with recommendations regarding future paleontologist monitoring, if deemed warranted.

Implementation of Mitigation Measure GEO-1 includes procedures to follow in the event of a paleontological discovery, including temporary cessation of work, assessment of the discovery, and options for appropriate treatment. With inclusion of this mitigation measure, impacts to unique paleontological resources or sites would be less than significant.

2. Impact C-GEO-1: The Project, in combination with past, present, and probably future projects in the Project area, could have cumulatively considerable impacts on a unique paleontological resource.

Cumulative impacts to unique paleontological resources or sites or unique geologic features could occur if any of the cumulative projects described in the EIR, in conjunction with this Project, would have impacts on paleontological resources that, when considered together, would be significant.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address cumulatively considerable impacts on paleontological resources.

Mitigation Measure GEO-1: Inadvertent Discovery of Paleontological Resources (Refer to Impact GEO-5)

Mitigation Measure GEO-1 would ensure that the Project's contribution toward cumulative effects on paleontological resources would not be cumulatively considerable. Implementation of Mitigation Measure GEO-1 includes procedures to follow in the event of a paleontological discovery at the Project site, including temporary cessation of work, assessment of the discovery, and options for appropriate

treatment. With inclusion of this mitigation measure, Project-related impacts to unique paleontological resources or sites would be less than significant, and the Project would not contribute to a cumulative impact.

4.4 Hazards and Hazardous Materials

1. Impact HAZ-4: The Project could be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

None of the Project sites are included on a list of hazardous materials sites compiled by one or more government regulatory agency. However, the College Lake pipeline would be installed within roadways, and would pass through seven Geotracker Sites with a status of "Completed – Case Closed". The College Lake pipeline alignment is also adjacent to one site that has a status of open (Study Oil Card Lock Cleanup Program Site) and one site that has a status of inactive, but needing evaluation (Columbia Pac Alum Corp., Pac Extrusion Tiered Permit).

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to the Project being located on a site that is included on a list of hazardous materials sites.

Mitigation Measure HM-2 (Revised). Prior to initiation of earthwork activities on properties along the College Lake pipeline alignment not sampled as part of adopted Mitigation Measure HM-1 PV Water shall perform a Phase I Environmental Site Assessment for the alignment to determine the potential for encountering hazardous materials contamination in soils to be excavated and identify appropriate recommendations. Appropriate health and safety measures shall be identified as needed for worker safety, soil handling, and disposal of contaminated soils.

Mitigation Measure HAZ-1a: Health and Safety Plan (HASP). Using information from the soil testing performed as part of adopted Mitigation Measure HM-1 and from the Phase I Environmental Site Assessment performed as part of adopted Mitigation Measure HM-2, the construction contractor(s) shall prepare and implement a site-specific HASP in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. The HASP shall include, but is not limited to, the following elements:

1. Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site HASP;

2. A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals based on the most recent data collection and reporting;

3. Specified personal protective equipment and decontamination procedures, if needed;

4. Emergency procedures, including route to the nearest hospital; and

5. Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered.

These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of unknown discovered or suspected hazardous materials release and notifying the Santa Cruz County CUPA (415-473-7085

The above-referenced mitigation measures provide for testing to discover the potential for encountering hazardous materials-contaminated soils to be excavated and identification of appropriate recommendations, as well as development and implementation of a Health and Safety Plan (Mitigation Measure HAZ-1a) and a Soil Management Plan (Mitigation Measure HAZ-1b)10 to address worker safety, soil handling, and disposal of contaminated soils. Results from soil testing and the Environmental Site Assessment would inform the contents of the Health and Safety Plan and Soil Management Plan. These measures would reduce impacts associated with encountering potentially contaminated soil or groundwater to less-than-significant levels by controlling contact with and release of these materials into the environment. Methods of control include soil testing (for areas where soil testing has not already occurred), stopping work should these materials be encountered, and use of a qualified contractor to dispose of contaminated materials in accordance with regulatory requirements.

4.5 Noise and Vibration

1. Impact NOI-3: Project construction would generate excessive groundborne vibration.

Trenchless construction sites along the College Lake pipeline would require the use of a vibratory pile driver to install sheet piles at the pit areas and a horizontal directional drill to install pipe under roadways. There are historic or potentially historic buildings (e.g., 200 Walker Street) located as close as 10 feet to trenchless construction at the following intersections: East Lake Avenue/Palm Avenue/Hushbeck Avenue, East Beach Street/Lincoln Street, and 2nd Street/Walker Street. These historic or potentially historic buildings could be exposed to vibration levels of 0.672 in/sec PPV during vibratory pile driving and 0.352 in/sec PPV during

horizontal directional drilling, which would exceed the historic building damage threshold.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to excessive groundborne vibration.

Mitigation Measure NOI-2: Vibration Monitoring Plan. Prior to construction, PV Water shall require the pipeline construction contractor to develop a Vibration Monitoring Plan in coordination with a structural engineer, geotechnical engineer, and construction contractor if trenchless construction methods are used at the following intersections: East Lake Avenue/Palm Avenue/Hushbeck Avenue, East Beach Street/Lincoln Street, and 2nd Street/Walker Street. The Vibration Monitoring Plan shall include the following elements:

- To mitigate vibration, the Vibration Monitoring Plan shall include measures such that surrounding buildings will be exposed to less than 0.25 in/sec PPV for historic or potentially historic buildings to prevent building damage. Measures may include restricting the use of vibratory pile driving and drill rigs from operating within 13 and 19 feet from historic structures, respectively.

- With permission of applicable property owners, conduct a pre-construction survey of buildings and other sensitive structures within the area of potential effects due to vibration-generating activities. Respond to any claims by inspecting the affected property promptly, but in no case more than five working days after the claim was filed. Any new cracks or other changes in structure will be compared to preconstruction conditions and a determination made as to whether the Project could have caused such damage. In the event that the Project is demonstrated to have caused any damage, such damage will be repaired to the pre-existing conditions.

Implementation of MitigationMeasure NOI-2 would ensure that vibration generated during the construction of the pipeline alignments would not exceed the 0.25 in/sec PPV historic building damage threshold by, if necessary, restricting certain types of equipment from certain locations.

4.6 Transportation and Traffic

1. Impact TRA-1: Construction of the Project would have temporary and intermittent effects on traffic and transportation conditions in the Project area.

Potential traffic and transportation effects would be confined to construction of the proposed facilities. The primary impacts from the movement of construction trucks would include short-term and intermittent lessening of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to effects on traffic and transportation conditions.

Mitigation Measure TRA-1a: Encroachment Permits. PV Water shall require the construction contractor to obtain any necessary road encroachment permits from the appropriate local jurisdiction (i.e., City of Watsonville, Santa Cruz County) prior to constructing each Project component and shall comply with the conditions of approval attached to all Project permits and approvals.

Mitigation Measure TRA-1b: Construction Traffic Control/Traffic Management Plan. PV Water shall require the construction contractor to prepare a Construction Traffic Control/Traffic Management Plan and submit it to the appropriate local jurisdiction (i.e., City of Watsonville, Santa Cruz County) for review and approval prior to construction. The plan shall be prepared in accordance with professional engineering standards and may include, but not be limited to, the following elements as appropriate:

- Identify hours of construction for each Project component.

- Schedule truck trips outside of peak morning and evening commute hours when feasible to minimize adverse impacts on traffic flow if agencies with jurisdiction over the affected roads identify highly congested roadway segments during their review of the encroachment permit applications. Haul routes that minimize truck traffic on local roadways and residential streets shall be used.

- Develop circulation and detour plans to minimize impacts on local street circulation. This may include the use of signing and flagging to guide vehicles, bicyclists, and pedestrians through and/or around the construction zone.

- Control and monitor construction vehicle movements by enforcing current standard construction specifications as defined by the appropriate local jurisdiction (i.e., City of Watsonville, Santa Cruz County) through periodic onsite inspections by the construction contractor.

- Install traffic control devices where traffic conditions warrant, as specified in the applicable jurisdiction's standards (e.g., the *California Manual of Uniform Traffic Controls for Construction and Maintenance Work Zones*).

- Perform construction that crosses on-street and off-street bikeways, sidewalks, and other walkways in a manner that allows for safe access for bicyclists and pedestrians. Alternatively, provide safe detours to reroute affected bicycle/pedestrian traffic.

- Consult with the Santa Cruz Metro at least one month prior to construction to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service.

- Comply with roadside safety protocols to reduce the risk of accidents, as defined in the *Caltrans Division of Construction Code of Safe Practices* and the *California Manual of Uniform Traffic Controls for Construction and Maintenance Work Zones*. Provide "Road Work Ahead" warning signs and speed control (including signs informing drivers of state-legislated double fines for speed infractions in a construction zone) to achieve required speed reductions for safe traffic flow through the work zone.

- Store all equipment and materials in designated contractor staging areas.

- Encourage construction crews to park at staging areas to limit lane closures in the public rights-of-way.

- Include a plan and implementation process for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities at least one week in advance. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints.

- Include a plan and implementation process to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times.

- Include a plan and implementation process to coordinate all construction activities with the Pajaro Valley Unified School District at least two months in advance. The Pajaro Valley Unified School District shall be notified of the timing, location, and duration of construction activities. PV Water shall coordinate with the Pajaro Valley Unified School District to identify peak circulation periods at schools along the College Lake pipeline alignment (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods, if feasible. The construction contractor for each Project component shall be required to ensure that construction of the Project component does not inhibit vehicle, bicycle, pedestrian, and/or school bus service through

inclusion of such provisions in the construction contract. The assignment of temporary crossing guards at designated intersections may be needed to enhance pedestrian safety during Project construction.

- Identify all roadway locations where special construction techniques (e.g., trenchless pipeline installation or night construction) will be used to minimize impacts on traffic flow. Require all open trenches and pits be covered with metal plates at the end of each workday to accommodate traffic and access.

Implementation of Mitigation Measures TRA-1a and TRA-1b would require compliance with local road encroachment permit conditions, preparation of a Traffic Control Plan, identification of roadways that require special construction techniques, development of a circulation and detour plan, and consultation with local transit service providers, all to reduce impacts on the flow of traffic during Project construction and to minimize traffic circulation delays.

2. Impact TRA-2: Construction of the Project would temporarily disrupt circulation patterns near sensitive land uses (schools, hospitals, fire stations, police stations, and other emergency providers).

Construction of the proposed weir structure, intake pump station, and WTP would not directly interfere with circulation patterns near sensitive land uses (i.e., schools, hospitals, fire stations, police stations, or other emergency providers) because no such uses are located adjacent to these proposed facilities. However, construction could indirectly disrupt circulation patterns near sensitive land uses, as haul routes could pass by sensitive land uses, and traffic may divert to roadways with sensitive land uses due to construction activity.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to temporary disruption of circulation patterns near sensitive land uses.

Mitigation Measure TRA-1b: Construction Traffic Control/Traffic Management Plan (Refer to Impact TRA-1)

Implementation of Mitigation Measure TRA-1b would require preparation of a Traffic Control Plan, identification of roadways that require special construction techniques, development of a circulation and detour plan, and consultation with local transit service providers. Specific requirements that may be included in the traffic control/traffic management plan regarding emergency access and access to public schools are included in Mitigation Measure TRA-1b. With implementation of Mitigation Measure TRA-1b, impacts related to temporary effects on emergency access and access to public schools would be mitigated to less than significant.

3. Impact TRA-3: Construction of the Project would have temporary effects on alternative transportation or alternative transportation facilities in the Project area.

Pipeline construction along Project area roadways could disrupt bicycle facilities (i.e., Holohan Road and West Beach Street) and access to bus stops and slow bus movements for bus routes provided by Santa Cruz Transit.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to temporary effects on alternative transportation or alternative transportation facilities.

Mitigation Measure TRA-1b: Construction Traffic Control/Traffic Management Plan (Refer to Impact TRA-1)

Implementation of Mitigation Measure TRA-1b would require preparation of a Traffic Control Plan, identification of roadways that require special construction techniques, development of a circulation and detour plan, and consultation with local transit service providers. The Traffic Control Plan would require the construction contractor to establish methods for minimizing construction effects on transit service. With implementation of Mitigation Measure TRA-1b, impacts related to temporary effects on transit service would be mitigated to less than significant.

4. Impact TRA-4: Construction of the Project could temporarily increase the potential for accidents on Project area roadways.

Construction zones in the public right-of-way and heavy equipment operating adjacent to or within a road right-of-way would increase the potential for accidents. Construction-generated trucks on Project area roadways could interact with other vehicles. Potential conflicts could also occur between construction traffic and alternative modes of transportation (e.g., bicyclists and buses).

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to the increase of potential for accidents on Project roadways.

Mitigation Measure TRA-1b: Construction Traffic Control/Traffic Management Plan (Refer to Impact TRA-1)

Implementation of Mitigation Measure TRA-1b would require preparation of a Traffic Control Plan, identification of roadways that require special construction techniques, development of a circulation and detour plan, and consultation with local transit service providers. The Traffic Control Plan would address compliance with roadside safety protocols, so as to reduce the risk of accidents. With implementation of Mitigation Measure TRA-1b, impacts related to the potential for accidents would be reduced to less than significant.

5. Impact C-TRA-1: The Project, in combination with past, present, and probable future projects in the Project area, would have cumulatively considerable impacts on transportation and traffic.

As noted above, the Project would result in significant traffic impacts during construction activities and, theoretically, could contribute to a cumulative short term impact on transportation and traffic.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to cumulatively considerable impacts on transportation and traffic.

Mitigation Measure TRA-1a: Encroachment Permits (Refer to Impact TRA-1)

Mitigation Measure TRA-1b: Construction Traffic Control/Traffic Management Plan (Refer to Impact TRA-1)

With implementation of Mitigation Measures TRA-1a, TRA-1b, and adopted Mitigation Measure TR-1 from the 2014 BMP Update PEIR, construction impacts on transportation and traffic would be reduced to less-than-significant levels. Each cumulative project listed in the EIR also would be required to comply with jurisdictional requirements regarding haul routes and would implement mitigation measures and/or include project characteristics, such as traffic controls and scheduling, notification, and safety procedures, to reduce potential traffic impacts during construction. In addition, many of the cumulative projects, like the Project, would likely restrict construction truck traffic and deliveries to off-peak hours to the extent feasible. Accordingly, Project-related contributions to cumulative construction traffic conditions during construction would be less than significant with mitigation.

4.7 Cultural Resources

1. Impact CUL-1: The Project could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

The Project could result in indirect effects to adjacent historical resources. Numerous previously documented historic architectural resources qualifying as, or potentially qualifying as, historical resources are located adjacent to Project components. Historical resources located within 19 feet of a vibratory pile driver and 13 feet of a drill rig would be exposed to vibration levels expected to cause building damage, and the Project could result in a substantial adverse change in the significance of these resources.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to the change in significance of a historical resource.

Mitigation Measure NOI-2: Vibration Monitoring Plan (Refer to Impact NOI-3)

With implementation of Mitigation Measure NOI-2, which (among other things) would ensure that vibration generated during pipeline construction would not exceed a performance standard of 0.25 inches per second peak particle velocity (the threshold for historic buildings), this impact would be less than significant. Mitigation Measure NOI-2 would ensure that vibration generated during the construction of the pipeline alignments would not exceed the 0.25 in/sec PPV historic building damage threshold by, if necessary, restricting certain types of equipment from certain locations.

2. Impact CUL-2: The Project could cause a substantial adverse change in the significance of an archaeological resource, including those determined to be a historical resource defined in Section 15064.5 or a unique archaeological resource defined in Public Resources Code 21083.2.

The Project has the potential to result in a substantial adverse change in the significance of an archaeological resource since there is potential for indirect impacts to known archaeological resources due to prolonged inundation and erosion, and to unknown archaeological resources from ground disturbance, which would extend up to 30 feet in depth.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to the change in significance of an archaeological resource.

Mitigation Measure CUL-1a: Retention of a Qualified Archaeologist. Prior to start of any ground-disturbing activities (i.e., demolition, pavement removal, pot-holing or auguring, boring, drilling, grubbing, vegetation removal, brush clearance,

weed abatement, grading, excavation, trenching, or any other activity that has potential to disturb soil), PV Water shall retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (codified in 36 CFR Part 61; 48 FR 44738-44739) to oversee and ensure that all mitigation related to archaeological resources is carried out.

Mitigation Measure CUL-1b: Pre-Construction Phase I Cultural Resources Survey. Prior to the start of any ground-disturbing activity, the qualified archaeologist shall conduct a pre-construction Phase I Cultural Resources Survey of all areas that have not been previously surveyed within the last five years. The survey shall document resources potentially qualifying as historical resources or unique archaeological resources under CEQA. The qualified archaeologist shall document the results of the survey in a Phase I Cultural Resources Survey Report that follows Archaeological Resource Management Reports (ARMR): Recommended Contents and Format. The qualified archaeologist shall also prepare Department of Parks and Recreation 523 forms for resources encountered during the survey, which shall be appended to the report. If historic architectural resources are encountered that could potentially be impacted by the Project, the qualified archaeologist shall consult with a Qualified Architectural Historian meeting the Secretary of the Interior's Professional Qualifications Standards for architectural history (codified in 36 CFR Part 61; 48 FR 44738-44739). The qualified archaeologist shall submit the draft Phase I Cultural Resources Survey Report to PV Water at least 90 days prior to the start of ground disturbance. The qualified archaeologist shall submit the final Phase I Cultural Resources Survey Report to the Northwest Information Center.

In the event resources potentially qualifying as historical resources or unique archaeological resources under CEQA are identified during the survey, avoidance and preservation in place shall be the preferred manner of mitigating impacts to the resources. Preservation in place maintains the important relationship between artifacts and their archaeological context and also serves to avoid conflict with traditional and religious values of groups who may ascribe meaning to the resource. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance of archaeological resources is determined by PV Water to be infeasible in light of factors such as the nature of the find, Project design, costs, and other considerations, then the portion of the resource within the Area of Direct Impact shall be subject to presence/absence testing and if potentially significant deposits are identified, the resource shall be evaluated for significance under all four National Register/California Register Criteria (A/1-D/4). If a resource is found to be significant (i.e., meets the definition for historical resource in CEQA *Guidelines* Section 15064.5(a) or unique archaeological resource in Public Resources Code Section 21083.2(g)), the qualified archaeologist shall develop an Archaeological Data Recovery and Treatment Plan for the resource. When assessing significance and developing treatment for resources that are Native American in origin, the qualified archaeologist and PV Water shall consult with the appropriate Native American representatives.

Mitigation Measure CUL-1c: Development of a Cultural Resources Monitoring and Mitigation Program. The qualified archaeologist shall prepare a Cultural Resources Mitigation and Monitoring Program (CRMMP) based on the final approved Project design plans. The CRMMP shall be submitted to PV Water at least 60 days prior to the start of any ground-disturbing activities. The CRMMP shall include:

- *Provisions for Archaeological Monitoring.* The CRMMP shall outline the archaeological monitor(s) responsibilities and requirements (refer to Mitigation Measure CUL-1f). The qualified archaeologist, in consultation with PV Water, shall have the ability to modify monitoring frequencies (i.e., either increase, decrease, or discontinue entirely) at all locations described below, based on soil observations (if it is determined that the likelihood of encountering intact significant resources is low due to disturbances or soil types, monitoring may be decreased or cease entirely) or discoveries (discovery of archaeological resources may warrant increased frequency of monitoring).

  – Full-time archaeological monitoring shall be required during all ground disturbance in the following locations:

    - Areas shaded purple and green on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR that are within agricultural fields (i.e., not within paved roadway right-of-ways)

    - The area along Maple Street/2nd Street between Main Street and Union Street within the City of Watsonville

    - Within 100 feet of Environmentally Sensitive Areas established through implementation of Mitigation Measure CUL-1e.

  – Part-time archaeological monitoring consisting of one 8-hour day per week shall be conducted during ground disturbance in the following locations (as noted above, the frequency of monitoring may be modified if conditions warrant):

    - Areas shaded purple on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR that are within paved roadway right-of-ways (i.e., not within agricultural fields), with the exception of area along Maple Street/2nd Street between Main Street and Union Street, which requires full-time monitoring as outlined above

    - Areas shaded orange on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR that are within agricultural fields (i.e., not within paved roadway right-of-ways)

  – Part-time archaeological monitoring consisting of one 4-hour day per week shall be conducted during ground disturbance in the following locations (as

noted above, the frequency of monitoring may be modified if conditions warrant):

- Areas shaded orange on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR that are within paved roadway right-of-ways (i.e., not within agricultural fields)

- *Procedures for Discovery of Archaeological Resources.* Procedures to be implemented in the event of an archaeological discovery shall be fully defined in the CRMMP, and shall include stop-work and protective measures, notification protocols, procedures for significance assessments, and appropriate treatment measures, and shall address procedures for when an archaeological monitor is present, and when one is not present. The CRMMP shall state avoidance or preservation in place is the preferred manner of mitigating impacts to historical resources and unique archaeological resources, but shall provide procedures to follow should PV Water determine that avoidance is infeasible in light of factors such as the nature of the find, Project design, costs, and other considerations. See also Mitigation Measure CUL-1h.

If, based on the recommendation of the qualified archaeologist, it is determined that a discovered archaeological resource constitutes a historical resource or unique archaeological resource pursuant to CEQA and data recovery through excavation is the only feasible mitigation available, an Archaeological Resources Data Recovery and Treatment Plan shall be prepared and implemented by the qualified archaeologist in coordination with PV Water that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource. PV Water, or its designee, will consult with appropriate Native American representatives in determining treatment of resources that are Native American in origin to ensure cultural values ascribed to the resource, beyond those that are scientifically important, are considered.

- *Procedures for Discovery of Human Remains and Associated Funerary Objects.* The CRMMP shall outline the protocols and procedures to be followed in the event that human remains and associated funerary objects are encountered during construction. These shall include stop-work and protective measures, notification protocols, and compliance with California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 (refer to Mitigation Measure CUL-2).

- *Reporting Requirements.* The CRMMP shall outline provisions for weekly, monthly, and final reporting. The qualified archaeologist shall prepare weekly status reports detailing activities and locations observed (including maps) and summarizing any discoveries for the duration of monitoring to be submitted to PV Water via e-mail for each week in which monitoring activities occur. Monthly progress reports summarizing monitoring efforts shall be prepared and submitted to PV Water for the duration of ground disturbance. The qualified archaeologist shall prepare a draft Archaeological Resources Monitoring Report and submit it

to PV Water within 60 days after completion of the monitoring program or of treatment for significant discoveries should treatment extend beyond the cessation of monitoring. The final Archaeological Resources Monitoring Report shall be submitted to PV Water within 30 days of receipt of PV Water comments. The qualified archaeologist shall also submit the final Archaeological Resources Monitoring Report to the Northwest Information Center. If human remains are encountered, a confidential report documenting all activities shall be submitted to the California Native American Heritage Commission within 90 days after completion of any treatment (refer to Mitigation Measure CUL-2).

- *Curation Requirements.* Disposition of Native American archaeological materials shall be determined through consultation between Native American representatives, the qualified archaeologist, and PV Water. Disposition of human remains and associated funerary objects shall be determined through consultation between the Most Likely Descendant, landowner, and PV Water (refer to Mitigation Measure CUL 2).

Any historic-period archaeological materials that are not Native American in origin shall be curated at a repository accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then it may be curated at a non-accredited repository as long as it meets the minimum standards set forth by 36 CFR 79.9. If neither an accredited nor a non-accredited repository accepts the collection, then it may be offered to a public, non-profit institution with a research interest in the materials, or donated to a local school or historical society in the area for educational purposes, to be determined by the qualified archaeologist in consultation with PV Water.

- *Protocols for Native American Monitoring and Input.* The CRMMP shall outline the role and responsibilities of Native American Tribal representatives. It shall include communication protocols, an opportunity and timelines for review of cultural resources documents related to discoveries that are Native American in origin, and provisions for Native American monitoring. The CRMMP shall include provisions for full-time Native American monitoring of ground disturbance in the purple and green shaded areas shown on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR within agricultural fields (i.e., not within paved roadway right-of-ways), as well as during any subsurface investigation and data recovery for discovered resources that are Native American in origin (refer to Mitigation Measures CUL-1g).

Mitigation Measure CUL-1d: Construction Worker Cultural Resources Sensitivity Training Program. A worker cultural resources sensitivity training program shall be implemented for the Project. Prior to any ground-disturbing activity, an initial sensitivity training session shall be provided by the qualified archaeologist to all project employees, contractors, subcontractors, and other professionals prior to their involvement in any ground-disturbing activities, with subsequent training sessions occurring on a monthly basis to accommodate new personnel becoming involved in the Project (subsequent sessions can be coordinated with other Worker

Environmental Awareness Program or safety training that may be required). Construction personnel shall be informed of the sensitivity of the Project area and given a tutorial providing information on how to identify the types of resources that may be encountered. They shall be instructed on the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, confidentiality of discoveries, and safety precautions to be taken when working with cultural resources monitors. PV Water shall make it a requirement that construction personnel are made available for and attend training sessions and retain documentation demonstrating attendance.

Mitigation Measure CUL-1e: Designation of Environmentally Sensitive Areas. Prior to the start of ground disturbance, the portion of the boundary of CA-SCR-44/H nearest Project-related activities shall be marked as an Environmentally Sensitive Area. This area shall not be marked as an archaeological resource, but shall be designated as an "exclusion zone" on Project plans and protective fencing in order to discourage unauthorized disturbance or collection of artifacts. The qualified archaeologist, or his/her designee, shall periodically inspect this area for the duration of Project activities in the vicinity to ensure that protective fencing remains intact and no incursions into the exclusion zone have occurred. Upon completion of all Project-related activities in the vicinity, all protective fencing and signage shall be removed.

Mitigation Measure CUL-1f: Archaeological Monitoring. Project-related ground disturbance shall be subject to archaeological monitoring as outlined in Mitigation Measure CUL-1c. The archaeological monitor(s) shall be familiar with the types of resources that could be encountered and shall work under the direct supervision of the qualified archaeologist. The archaeological monitor(s) shall keep daily logs detailing the types of activities and soils observed, and any discoveries. Archaeological monitor(s) shall have the authority to halt and re-direct ground disturbing activities in the event of a discovery until it has been assessed for significance and treatment implemented, if necessary, based on the recommendations of the qualified archaeologist in coordination with PV Water, and the Native American representatives in the event the resource is Native American in origin, and in accordance with the protocols and procedures outlined in the CRMMP (refer to Mitigation Measure CUL-1c). The qualified archaeologist shall have the authority to modify monitoring frequencies based on soil observations and/or discoveries.

Mitigation Measure CUL-1g: Native American Monitoring. Prior to the start of any ground-disturbing activity, PV Water shall retain a qualified Native American monitor to provide monitoring services as outlined in Mitigation Measure CUL-1c. The Native American monitor shall be from a Tribe that is culturally and geographically affiliated with the Project area (according to the California Native American Heritage Commission contact list for this project). If resources of Native American origin are discovered, the Native American monitor shall provide monitoring services in accordance with protocols and procedures outlined in the CRMMP (refer to Mitigation Measure CUL-1c).

Mitigation Measure CUL-1h: Inadvertent Discovery of Archaeological Resources. In the event that archaeological resources are encountered during ground disturbance, all activity in the vicinity of the find shall cease (within 100 feet), and the protocols and procedures for discoveries outlined in the CRMMP shall be implemented (refer to Mitigation Measure CUL-1c). The discovery shall be evaluated for potential significance by the qualified archaeologist. If the qualified archaeologist determines that the resource may be significant, the qualified archaeologist shall develop an appropriate treatment plan for the resource in accordance with the CRMMP (refer to Mitigation Measure CUL-1c). When assessing significance and developing treatment for resources that are Native American in origin, the qualified archaeologist and PV Water shall consult with the appropriate Native American representatives. The qualified archaeologist shall also determine if work may proceed in other parts of the Project area while treatment for cultural resources is being carried out, and whether additional archaeological and/or Native American monitoring is warranted.

Mitigation Measure CUL-1i: Long-Term Monitoring of CA-SCR-44/H and CA-SCR-150. PV Water shall retain a qualified archaeologist to conduct quarterly inspections of the portions of CA-SCR-44/H and CA-SCR-150 that overlap with the proposed lake storage area to ensure that raised lake water levels are not resulting in site erosion. If erosion or other indirect impacts are noted, PV Water shall work with the qualified archaeologist to develop a plan to protect the site(s) from further damage, or a plan to conduct data recovery of the affected portion(s) if protective measures are determined by PV Water to be infeasible. Quarterly inspections shall be conducted for two years; after which time they shall be reduced to semi-annual inspections for an additional three years. If after five years no erosion or other indirect impacts are noted, the long-term monitoring program shall be discontinued. After each inspection, the qualified archaeologist shall prepare a technical memorandum documenting the results of the inspection with photographs. Memoranda shall be submitted to PV Water within 30 days of the completion of each inspection.

Mitigation Measures CUL-1a through CUL-1i emphasize discovery and evaluation of potential archaeological resources, avoidance of impacts to those resources, and minimization of impacts. Specifically, and taken together, these measures require retention of a qualified archaeologist, pre-construction surveys, development of a cultural resources monitoring and mitigation program, construction worker cultural resources sensitivity training, archaeological and Native American monitoring, treatment of inadvertent discoveries, and long-term monitoring of CA-SCR-44/H and CA-SCR-150.

3. Impact CUL-3: The Project could disturb human remains, including those interred outside of formal cemeteries.

There are archaeological sites with Native American burials, as well as formal cemeteries, in the vicinity of the Project. None of the sites or cemeteries overlap with proposed ground-disturbing activities and it is not anticipated that the Project would

disturb human remains associated with these resources. However, given the prehistoric occupation of the area and the high sensitivity for buried prehistoric resources, there is a potential for Project-related ground disturbance to disturb human remains, including those outside of formal cemeteries.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to disturbing human remains.

Mitigation Measure CUL-2: Inadvertent Discovery of Human Remains. If human remains are encountered, then PV Water shall halt work in the vicinity (within 100 feet) of the discovery and contact the County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. If the County Coroner determines the remains are Native American, then the Coroner shall notify the California Native American Heritage Commission in accordance with Health and Safety Code subdivision 7050.5(c), and Public Resources Code Section 5097.98. The California Native American Heritage Commission shall designate a Most Likely Descendant for the remains pursuant to Public Resources Code Section 5097.98. Until the landowner has conferred with the Most Likely Descendant, the contractor shall ensure the immediate vicinity where the discovery occurred is not disturbed by further activity, is adequately protected according to generally accepted cultural or archaeological standards or practices, and that further activities take into account the possibility of multiple burials. If human remains are encountered, the qualified archaeologist, in consultation with the Most Likely Descendant shall prepare a confidential report documenting all activities and it shall be submitted to the California Native American Heritage Commission within 90 days after completion of any treatment.

Mitigation Measure CUL-2, requires halting work in the event of discovery of human remains, and compliance with statutory requirements found in Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. With the implementation of this measure, impacts to human remains would be less than significant.

4. **Impact C-CUL-1: T**he Project, in combination with past, present, and probable future projects in the Project area, could have cumulatively considerable impacts on cultural resources.

   Cumulative impacts to archaeological resources, or impacts to human remains, could occur if any of the cumulative projects listed in the EIR, in conjunction with this Project, would have impacts that, when considered together, would be significant.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address cumulatively considerable impacts on cultural resources.

Mitigation Measures NOI-2: Vibration Monitoring Plan. (Refer to Impact NOI-4)

Mitigation Measure CUL-1a: Retention of a Qualified Archaeologist. (Refer to Impact CUL-2)

Mitigation Measure CUL-1b: Pre-Construction Phase I Cultural Resources Survey (Refer to Impact CUL-2)

Mitigation Measure CUL-1c: Development of a Cultural Resources Monitoring and Mitigation Program. (Refer to Impact CUL-2)

Mitigation Measure CUL-1d: Construction Worker Cultural Resources Sensitivity Training Program. (Refer to Impact CUL-2)

Mitigation Measure CUL-1e: Designation of Environmentally Sensitive Areas. (Refer to Impact CUL-2)

Mitigation Measure CUL-1f: Archaeological Monitoring. (Refer to Impact CUL-2)

Mitigation Measure CUL-1g: Native American Monitoring. (Refer to Impact CUL-2)

Mitigation Measure CUL-1h: Inadvertent Discovery of Archaeological Resources. (Refer to Impact CUL-2)

Mitigation Measure CUL-1i: Long-Term Monitoring of CA-SCR-44/H and CA-SCR-150. (Refer to Impact CUL-2)

Mitigation Measure CUL-2: Inadvertent Discovery of Human Remains. (Refer to Impact CUL-3)

Mitigation Measures CUL-1a through CUL-1i (described above) would ensure that the Project's contribution toward cumulative effects on archaeological resources would not be cumulatively considerable. Similarly, Mitigation Measure CUL-2, which requires halting work and complying with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5, would ensure that the Project's contribution toward cumulative effects on human remains would not be cumulatively considerable.

4.8 Aesthetics

1. Impact AES-1: Implementation of the Project could have a substantial adverse effect on scenic vistas.

Vistas from SR 152 in the College Lake area include views of roadside trees and shrubs in the foreground intermixed with institutional and commercial built structures, and brief, intermittent views of agricultural fields through breaks in the roadside vegetation and between built structures along the highway. Views of College Lake, the proposed weir structure and intake pump station, and the WTP at the optional WTP site from SR 152 would be brief and intermittent through a visual foreground comprised of roadside vegetation and built structures. The proposed weir structure and intake pump station would be larger than the existing structures, but would look similar in nature.

The preferred WTP site is highly visible in the foreground of scenic vistas from Holohan Road. Without landscaping or other screening, the dominant features visible from Holohan Road would be the fence, the electrical/operation building, silos storing water treatment chemicals, and cylindrical tanks containing the pressure filters; three additional structures associated with potential future treatment operations would also be located along the Holohan Road frontage, if needed.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to having a substantial adverse effect on scenic vistas.

Mitigation Measure AES-1a: Aboveground Facility Treatment. PV Water shall paint or otherwise treat aboveground facilities using low-glare paint that blends with predominant color(s) of the surrounding terrain, unless colors otherwise specified by regulatory agencies. Concrete structures need not be painted.

Mitigation Measure AES-1b: Landscaping. For the preferred WTP site, PV Water shall shift the site plan northward in order to preserve orchard trees along Holohan Road and several orchard trees northeast of 116 Holohan Road, to the extent feasible and in accordance with PV Water security requirements. Where preservation of orchard trees along Holohan Road is not feasible (e.g., due to the access road and the College Lake pipeline), PV Water shall use landscaping to reduce textural contrasts and enhance visual integration of the WTP with its surroundings. Landscaping shall include shrubs and other vegetation typical of the surrounding area.

For the optional WTP site, PV Water shall use landscaping to reduce textural contrasts and enhance visual integration of the WTP with its surroundings when viewed from SR 152. Landscaping shall include shrubs and other vegetation typical of the surrounding area.

Mitigation Measures AES-1a and AES-1b are revised versions of Mitigation Measures AE-1a and AE-1b that address site-specific, design-specific characteristics of the Project. With implementation of adopted Mitigation Measures AE-1a and AE-1b, the proposed WTP at the optional site would not appreciably damage the visual qualities of the viewshed from SR 152 given the visibility and relative scale of Project components and the ability of the adopted mitigation measures to reduce visual contrast with the surrounding area. In addition, PV Water has committed to using landscaping to provide screening and design elements such as low-glare earth-tone paint to visually integrate the proposed aboveground structures of the WTP with their surroundings. With the incorporation of Mitigation Measures AES-1a and AES-1b, the adverse impact on scenic vistas from Holohan Road would be less than significant.

2. Impact AES-3: Implementation of the Project could degrade the existing visual character or quality of public views of the sites in non-urbanized areas.

The preferred WTP site located adjacent to Holohan Road is a highly visible site. This site has moderate visual quality and high exposure from Holohan Road, and is thus considered to have moderate to high visual sensitivity. The proposed structures, basins, and paving would permanently change the visual character of the site from a rural, agrarian apple orchard to a developed site and would result in a substantial degradation of the existing visual character of the site and a significant adverse impact.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to degrading the existing visual character or quality of public views.

Mitigation Measures AES-1a: Aboveground Facility Treatment. (Refer to Impact AES-1)

Mitigation Measure AES-1b: Landscaping. (Refer to Impact AES-1)

Implementation of Mitigation Measures AES-1a and AES-1b would help enhance visual integration of the proposed aboveground facilities with the existing visual character of the area, partially screening structures from public view and reducing textural contrasts with the surroundings. Thus, the impact on existing visual character and quality of public views of the preferred WTP site would be reduced to less than significant with mitigation.

3. Impact AES-4: Project components could introduce significant new sources of light or glare.

Proposed weir structure and intake pump station construction could occur seven days a week between 7:00 a.m. and 7:00 p.m., and may require some morning and late afternoon lighting depending upon ambient light conditions. Similarly, potential trenchless pipeline construction (refer to Figures 2-3a through 2-3e) could require construction for up to 24 hours per day for up to several days in a row. Construction-related lighting would be temporary in duration but could introduce a significant new source of light or glare.

Findings: Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

Facts in Support of Findings. PV Water adopts the following mitigation measures that would address impacts related to introducing significant new sources of light and glare.

Mitigation Measure AES-2: Construction Lighting. PV Water shall require contractors to direct nighttime lighting used during construction away from residential areas, use the minimum amount of night lighting necessary for construction and safety, and shield and hood outdoor lighting to prevent light spillover effects during Project construction.

Implementation of Mitigation Measure AES-2 would require PV Water or its contractor to use shielded and hooded outdoor construction lighting directed to the area where the lighting would be required to minimize ambient light during Project construction. With the implementation of Mitigation Measure AES-2, visual impacts related to construction lighting would be less than significant with mitigation.

5. Significant and Unavoidable Environmental Effects

The DEIR identified the following significant or potentially significant impacts as remaining significant and unavoidable because the impacts cannot be mitigated to a less-than-significant level. As stated in CEQA Guidelines Section 15091, PV Water finds that "specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives" identified in the DEIR. PV Water further finds that the Project has been designed in a manner that reduces impacts to the extent feasible, while achieving the specific economic, legal, social and technological benefits of the Project. With regard to each significant effect that is not avoided or that is not substantially lessened, the Agency is adopting a Statement of Overriding Consideration in accordance with CEQA Guidelines Section 15093, as set forth in Exhibit B to Resolution 2019-18.

5.1 Land Use and Agricultural Resources

Although implementation of the Project would result in the permanent conversion of Important Farmland through direct and indirect changes in the environment, and pipeline

construction could result in long-term adverse impacts on Important Farmland, these impacts would be partially mitigated by the Project's contribution to the long-term preservation of such farmland within the Pajaro Valley by substituting surface water for groundwater resources. While implementation of Mitigation Measures LU-1a, LU-1b, and LU-1c could reduce these impacts, the loss of Important Farmland remains Significant and Unavoidable for the following reasons. First, implementation of Mitigation Measure LU-1b relies on agreements with third parties (Santa Cruz Land Trust or similar entity or private property owners). Additionally, the implementation of agricultural easements under Mitigation Measure LU-1b restricts future land uses; consequently, land owners may be unwilling to put agricultural easements on their property. Moreover, the cost of implementing Mitigation Measure LU-1b is not known and cannot be known with certainty at this time. Due to the need to negotiate acquisition of each individual agricultural easement with a willing property owner, there is some uncertainty as to the timing by which Mitigation Measure LU-1b could be implemented. Lastly, while acquiring agricultural easements would ensure that the parcels over which they are acquired are preserved for agricultural uses, the Project would not reduce the number of acres lost to agricultural production. A conservation easement would not 'replace or provide a substitute resource' (CEQA Guidelines § 153701(e)) for the permanent loss of farmland acreage. For all of the foregoing reasons, implementation of Mitigation Measure LU-1b may be infeasible. Thus, the DEIR concludes that impacts to the loss of Important Farmland remain significant and unavoidable. Nevertheless, while the Project would adversely affect Important Farmland in and around College Lake, its implementation would nevertheless in and of itself mitigate this impact to some extent, by also promoting the long-term preservation of such farmland within the Pajaro Valley into the future by substituting surface water for groundwater resources within a critically overdrafted groundwater basin.

1. **Impact LU-1: The Project would convert Important Farmland to non-agricultural use and could involve changes in the existing environment which, due to their location or nature, could result in conversion of Important Farmland to non-agricultural use.**

   Findings: The conversion of Important Farmland to non-agricultural use due to Project implementation is not expected to be mitigated to a less-than-significant level with implementation of feasible mitigation measures. No feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable (CEQA Guidelines §15091(a)(3).)

   Facts in Support of Findings. PV Water adopts the following mitigation measures. Mitigation Measures LU-1a, LU-1b, and LU-1c represent the best mitigation measures developed by PV Water that may be feasible and reasonable to implement during implementation of the Project depending on agreements with third parties. However, as stated above, full implementation of Mitigation Measure LU-1b may not be feasible because it requires actions by third parties and not within PV Water's control. Additional feasible mitigation measures are not known and therefore are not recommended. The Project would convert Important Farmland to non-agriculture use, and this impact would be significant and unavoidable. [DEIR page 3.2-15 to 3.2-25].

Mitigation Measure LU-1a: Promote Farming. To reduce the amount of Farmland of Statewide Importance and Unique Farmland converted to other uses and in coordination with affected landowners, PV Water shall adopt practices to promote farming within the areas depicted with red hatching on Figure 3.2-4 of the College Lake Integrated Resources Management Project EIR. Such practices may include, but are not limited to, the following:

a. Maintain, improve and potentially expand tile drain systems.

b. If controlling land by easement, establish terms that require land owners to cultivate crops or otherwise productively use the land for agricultural purposes at least once every five years, hydrologic conditions permitting.

c. If acquiring land outright, enter into lease arrangements for the land to be cultivated or otherwise productively used for agricultural purposes at least once every five years, hydrologic conditions permitting.

Mitigation Measure LU-1b: Compensate for Conversion of Important Farmland. Track Conversion of Important Farmland. PV Water shall review California Department of Conservation's Farmland Mapping and Monitoring Program farmland designations for College Lake annually beginning with the first year of construction and continuing for five years of Project operation. PV Water shall identify Prime Farmland, Farmland of Statewide Importance, and Unique Farmland referred to herein as Important Farmland that is within the College Lake basin below elevation 63 feet NAVD88 that converts due to water management operations.

Establish Memorandum of Understand for Agricultural Easement Fund. PV Water shall enter into a Memorandum of Understanding with the Santa Cruz Land Trust or similar entity. The Memorandum of Understanding shall include details regarding an Agricultural Easement Fund to be paid by PV Water and the timing of acquisition of agricultural easements for the purpose of offsetting impacts on Important Farmland caused by the Project. Acceptance of this fee by the Santa Cruz Land Trust or similar entity shall serve as an acknowledgment and commitment to: (1) secure agricultural easements to offset the conversion of Important Farmland caused by the Project; and (2) provide documentation to PV Water describing the project(s) funded by the mitigation fee. If there is any remaining unspent portion of the Agricultural Easement Fund following implementation, PV Water shall be entitled to a refund in that amount. To qualify under this mitigation measure, the specific agricultural easement acquisition projects must preserve acreage of farmland of an equal or greater Farmland Mapping and Monitoring Program designation value (e.g., Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) within the PV Water service area to offset the permanent conversion of Important Farmland by the Project.

Contribute to Agricultural Easement Fund. PV Water shall initially designate funds to secure easements for up to 6 acres of Prime Farmland to offset impacts associated with the water treatment plant. In addition, for Prime Farmland, Farmland of

Statewide Importance, or Unique Farmland within the lake basin that the Department of Conservation converts to non-agricultural designations after the Project has operated for a period of one year, PV Water shall designate for the Agricultural Easement Fund an amount to cover the costs associated with acquisition of agricultural easements of equivalent Farmland Mapping and Monitoring Program designation value.

Directly Fund Agricultural Easements. As an alternative approach to establishing a memorandum of understanding for, and contributing to an agricultural easement fund, PV Water could elect to directly fund the purchase of agricultural easements for Important Farmland in the Pajaro Valley.

Mitigation Measure LU-1c: Replacement of Topsoil. In agricultural areas, PV Water shall require contractors to stockpile topsoil at Project sites during Project grading and reapply it in situ after construction to promote vegetative growth. In agricultural areas temporarily disturbed by construction and where excavation occurs, the following measures shall apply:

- Strip 18 inches of topsoil from the area excavated unless otherwise stipulated by the landowner. The topsoil shall be stored separately from subsoil and other construction materials.

- Clearly mark topsoil with signs, and store topsoil separately from other excavated and imported materials in such a manner that the topsoil is not damaged, mixed, or covered by subsoil or surface rocks, and so that it is not continually disturbed.

- Stockpile topsoil on the same property from which it was stripped and return topsoil to same property from which it was stripped

2. Impact C-LU-1: The Project, in combination with past, present, and probable future projects in the Project area, would have a cumulatively considerable impact on the conversion of Important Farmland to non-agricultural use.

Findings: The conversion of Important Farmland to non-agricultural use due to implementation of the projects listed on DEIR page 3.2-27 in addition to the Project is not expected to be mitigated to a less-than-significant level with implementation of feasible mitigation measures. No feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable (CEQA Guidelines §15091(a)(3).)

Facts in Support of Findings. PV Water adopts the following mitigation measures. Mitigation Measures LU-1a and LU-1b represent the best mitigation measures developed by PV Water that may be feasible and reasonable to implement during implementation of the Project depending on agreements with third parties. Due to uncertainties of fully implementing Mitigation Measure LU-1b as stated above regarding Impact LU-1, additional feasible mitigation measures are not known and therefore are not recommended. The Project, in combination with the projects listed

on DEIR page 3.2-27 would convert Important Farmland to non-agriculture use, and this impact would be significant and unavoidable. [DEIR page 3.2-26 to 3.2-28].

Mitigation Measure LU-1a: Promote Farming. (Refer to Impact LU-1)

Mitigation Measure LU-1b: Compensate for Conversion of Important Farmland. (Refer to Impact LU-1)

5.2 Noise and Vibration

Construction activities at the preferred WTP site, pipeline alignments (trench construction), and trenchless pipeline construction near SR 152 and Walker Street would expose nearby sensitive receptors to noise levels that would exceed the County of Santa Cruz construction noise standard or occur outside the allowed construction hours identified in the City of Watsonville noise ordinance. Implementation of Mitigation Measure NOI-1a is expected to attenuate construction noise levels by at least 5 dB; however, noise levels would not be reduced below the County of Santa Cruz construction noise standard. In addition, construction activities at boring sites within the city limits would occur outside of the allowed hours specified in the City of Watsonville noise ordinance due to 24-hour trenchless pipeline construction. Therefore, a significant impact would occur at this these locations even with implementation of Mitigation Measures NOI-1a and NOI-1b, and as a result impacts at these Project sites would remain significant and unavoidable with mitigation.

1. **Impact NOI-1: Construction of the Project would result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plans or noise ordinances.**

   Findings: The increase in ambient noise levels in excess of standards established in the local general plan or noise ordinances due to Project construction is not expected to be mitigated to a less-than-significant level with implementation of feasible mitigation measures. No feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable (CEQA Guidelines §15091(a)(3).)

   Facts in Support of Findings. PV Water adopts the following mitigation measures. Mitigation Measures NOI-1a and NOI-1b represent the best mitigation measures developed by PV Water that may be feasible and reasonable to implement during Project construction. Due to proximity of sensitive receptors and the need for certain construction activities (horizontal directional drilling) to occur outside of allowed construction hours specified in the City of Watsonville noise ordinance, additional feasible mitigation measures are not known and therefore are not recommended. The Project would increase ambient noise levels in excess of standards established in the local general plan or noise ordinances, and this impact would be significant and unavoidable. [DEIR page 3.8-13 to 3.8-21].

Mitigation Measure NOI-1a: Construction Noise Reduction Plan. PV Water shall develop and implement a Construction Noise Reduction Plan prior to initiating construction at the weir structure and intake pump station, the preferred WTP site, College Lake pipeline (trench construction) and trenchless construction activities near SR 152 and Walker Street. A disturbance coordinator shall be designated for the Project to implement the provisions of the plan. At a minimum, the Construction Noise Reduction Plan shall implement the following measures:

- Distribute to the potentially affected residences and other sensitive receptors within 200 feet of the Project construction site boundaries notice including a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The notice shall identify the noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the reason for the noise complaints and institute actions warranted to correct the problem, if any. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The notice shall also include the construction schedule.

- All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof.

- The use of impact and vibratory pile drivers is limited to the daytime and evening hours permissible under the County of Santa Cruz noise ordinance. All impact pile driving activities shall be restricted to the hours of 8:00 a.m. to 10:00 p.m.

- Maintain maximum physical separation, as far as practicable, between noise sources (construction equipment) and sensitive noise receptors. Separation may be achieved by locating stationary equipment (such as generators) in areas that would minimize noise impacts on the community.

- Impact tools (e.g., jack hammers, pavement breakers) used during construction activities shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools to the extent feasible. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used.

- Use construction noise barriers such as paneled noise shields, blankets, and/or enclosures adjacent to noisy stationary and off-road equipment. Noise control shields, blankets and/or enclosures shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. This measure does not apply to pipeline construction.

Mitigation Measure NOI-1b: Off-site Accommodations for Substantially Affected Nighttime Receptors. PV Water shall offer to provide temporary hotel accommodations for all residences within 200 feet of where trenchless construction activities would occur at the SR 152 and Walker Street crossings. The

accommodations shall be provided for the duration of nighttime drilling activities. PV Water shall provide accommodations reasonably similar to those of the impacted residents (e.g., in terms of the number of beds).

2. Impact C-NOI-1: The Project, in combination with past, present, and probable future projects in the site vicinity, would have a cumulatively considerable impact associated with construction noise.

Findings: The combined effect of Project-related construction activities with construction activities of nearby cumulative projects (as shown on DEIR Figure 3.1-1) is not expected to be mitigated to a less-than-significant level with implementation of feasible mitigation measures. No feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable (CEQA Guidelines §15091(a)(3).)

Facts in Support of Findings. PV Water adopts the following mitigation measures. Mitigation Measures NOI-1a, NOI-1b, and NOI-2 represent the best mitigation measures developed by PV Water that may be feasible and reasonable to implement during Project construction. Due to proximity of sensitive receptors and the need for certain construction activities (horizontal directional drilling) to occur outside of allowed construction hours specified in the City of Watsonville noise ordinance, additional feasible mitigation measures are not known and therefore are not recommended. The Project, in combination with the project's shown on DEIR Figure 3.1-1 would increase ambient noise levels in excess of standards established in the local general plan or noise ordinances, and this impact would be significant and unavoidable. [DEIR page 3.8-26 to 3.8-27].

Mitigation Measure NOI-1a: Construction Noise Reduction Plan. (Refer to Impact NOI-1)

Mitigation Measure NOI-1b: Off-site Accommodations for Substantially affected Nighttime Receptors. (Refer to Impact NOI-1)

Mitigation Measure NOI-2: Vibration Monitoring Plan. Prior to construction, PV Water shall require the pipeline construction contractor to develop a Vibration Monitoring Plan in coordination with a structural engineer and geotechnical engineer if trenchless construction methods are used at the following intersections: East Lake Avenue/Palm Avenue/Hushbeck Avenue, East Beach Street/Lincoln Street, and 2nd Street/Walker Street. The Vibration Monitoring Plan shall include the following elements:

- To mitigate vibration, the Vibration Monitoring Plan shall include measures such that surrounding buildings will be exposed to less than 0.25 in/sec PPV for historic or potentially historic buildings to prevent building damage. Measures may include restricting the use of vibratory pile driving and drill rigs from operating within 13 and 19 feet from historic structures, respectively.

- With permission of applicable property owners, conduct a pre-construction survey of buildings and other sensitive structures within the area of potential effects due to vibration-generating activities. Respond to any claims by inspecting the affected property promptly, but in no case more than five working days after the claim was filed. Any new cracks or other changes in structure will be compared to preconstruction conditions and a determination made as to whether the Project could have caused such damage. In the event that the Project is demonstrated to have caused any damage, such damage will be repaired to the pre-existing conditions.

6. Findings Regarding Project Component Alternatives and Project Alternatives

Project Component Alternatives

6.1 Water Treatment Plant

1. **Description.** The DEIR analyzed two potential WTP sites at the following locations:

   - Preferred WTP Site: North of Holohan Road between Laken Drive and Grimmer Road, southwest of College Lake (within Assessor Parcel Number 051-101-47).

   - Optional WTP Site: West of the proposed weir structure (within Assessor Parcel Number 051-441-24).

   The preferred WTP site would occupy approximately five acres while the optional WTP site would occupy six acres. Development of the optional WTP site would require an elevated fill pad to raise the WTP site above flood elevation, which would require more area than the preferred WTP site. The configuration of the WTP at either site would be similar. The construction phase durations of the WTP at both sites would be the same with the exception of surcharging for the optional WTP site which would be increased by 12 to 18 months to allow for consolidation of fill pad at that site (there would be no construction activity at the site during consolidation).

2. **Finding.** PV Water hereby finds that the preferred WTP site is environmentally superior to the optional WTP site given the difference in impact severity, magnitude, and duration. PV Water hereby rejects the optional WTP site.

3. **Facts in Support of Findings.** Construction of the WTP at either site would have significant and unavoidable impacts due to conversion of Important Farmland. On the basis of direct impacts on Important Farmland, the preferred WTP site would affect one less acre of Important Farmland than the optional WTP site. Taking into account the additional conversion of Important Farmland that could occur through the division or fragmentation of parcels, construction of the WTP at the optional site could increase to total conversion of Important Farmland by an estimated 4.8 acres. Because

the optional WTP site is within a floodplain, there is a potential higher risk of flooding than at the preferred WTP site. Regardless of which WTP site is selected, PV Water would implement adopted Mitigation Measure HWQ-4 from the 2014 BMP Update PEIR which would require that facilities be designed to comply with FEMA and County of Santa Cruz requirements to floodproof the facilities and not exacerbate upstream or downstream flood hazards on other properties. Construction of the WTP at the preferred site would result in two significant impacts that would not occur at the optional WTP site. Short-term noise impacts due to construction would result in short-term exceedances of the County's noise standard at the nearest sensitive receptor, a significant and unavoidable impact at the preferred WTP site even after implementation of Mitigation Measure NOI-1a. Development of the WTP at the preferred site would also have long-term significant impact on aesthetic resources, but these impacts could be mitigated to less-than-significant levels with implementation of Mitigation Measures AE-1a and AE-1b.

PV Water hereby finds that each of the reasons set forth above would be an independent ground for rejecting the Optional WTP Site and by itself, independent of any other reason, would justify rejection of the Optional WTP Site.

6.2 College Lake Pipeline

1. **Description.** The proposed College Lake pipeline would extend from the proposed WTP to the CDS and the Recycled Water Facility at the Watsonville Wastewater Treatment Facility (refer to DEIR Figures 2-3a through 2-3e). The proposed College Lake pipeline alignment follows existing developed road rights-of-way and agricultural land. The DEIR analyzed two potential pipeline alignments at the State Route (SR) 1 crossing: the preferred pipeline alignment is in West Beach Street and the optional pipeline alignment goes through agricultural land south of West Beach Street. The optional pipeline alignment was included because the number and location of existing utilities in this segment of West Beach Street could complicate or preclude pipeline construction.

2. **Finding.** Neither alignment is considered environmentally superior to the other. PV Water finds that consideration of which pipeline alignment to select should be deferred to staff and should occur after staff can confirm the number and location of utilities in West Beach Street and whether there is sufficient room to accommodate the College Lake pipeline within the preferred pipeline alignment.

3. **Facts in Support of Findings.** There are environmental tradeoffs between the preferred and optional pipeline alignment with respect to temporary, significant, mitigable impacts to farmland, transportation, and noise. Unlike the preferred pipeline alignment at the SR 1 crossing, the optional pipeline route would have a temporary significant impact on disruption of agricultural use during project construction that could be mitigated with implementation of Mitigation Measure LU-1c. Following cessation of pipeline construction activities, farming could resume within the construction corridor; however, trees with roots extending more than three feet below

ground would be prohibited above the pipeline because deep roots could damage the pipeline and its cover. Replacing topsoil would prevent a long-term adverse effect on Important Farmland resulting from pipeline construction. Because the preferred pipeline alignment would be installed in West Beach Street instead of farmland, temporary, intermittent impacts on traffic and transportation conditions and alternative transportation modes, and the potential for accidents on Project area roadways, would be greater with the preferred pipeline alignment, but could be mitigated with implementation of Mitigation Measures TRA-1, TRA-3, and TRA-4. Construction along the optional pipeline alignment would require trenchless construction at two additional locations (one at the SR 129 crossing and one at the SR 1 crossing). As explained under Impact NOI-1 in DEIR Section 3.8, Noise and Vibration, since construction activities at the SR 129 and SR 1 crossings would not exceed the County's daytime or nighttime noise standards, impacts related to exposure of sensitive receptors to noise levels in excess of standards found in the local noise ordinance would be less than significant at these crossings for both the preferred and optional pipeline alignment.

Project Alternatives

PV Water considered a range of reasonable alternatives discussed below. In determining what alternatives to analyze, PV Water considered, but rejected, other potential alternatives as not requiring further review because these alternatives would not meet the Project objectives and are thus deemed infeasible, and do not warrant further analysis.

6.3 No Project Alternative

1. **Description.** The No Project Alternative is defined as no College Lake Project. None of the actions described in Section 2, including construction and operation of the weir structure and intake pump station, WTP, and College Lake pipeline would occur. Reclamation District 2049 would presumably continue to pump College Lake dry in the spring so the lakebed could be used for crop production from July through October.

   Groundwater, recycled water, and Harkins Slough diversions would continue to provide water for agricultural irrigation. Industrial, commercial, and domestic residential use of groundwater and limited surface water within the City of Watsonville and beyond would continue. PV Water would continue to pursue the Harkins Slough Recharge Facilities Upgrades and Watsonville Slough with Recharge Basins Projects. Because the College Lake Project represents the largest single source of surface water proposed as part of the 2014 BMP Update PEIR, PV Water would have to pursue other options in order to help balance the groundwater basin, prevent further seawater intrusion, and meet water supply needs. These actions would be necessary in accordance with PV Water's mission, its commitments to implement the BMP Update, and its obligations as the designated Groundwater Sustainability Agency under the Sustainable Groundwater Management Act, California Water Code Section 10723. Other options could include one or more of the components of the Water Supply Facilities Alternative presented in the 2014 BMP Update PEIR.

2. **Finding.** PV Water rejects the No Project Alternative, which is not considered the environmentally superior alternative and does not meet any of the project objectives.

3. **Facts in Support of Findings.** The No Project Alternative would fail to meet any of the Project or BMP Update objectives. The No Project Alternative would not: prevent seawater intrusion, long-term groundwater overdraft, land subsidence and water quality degradation; manage existing and supplement water supplies to control overdraft and provide for present and future water needs; create a reliable, long-term water supply; develop water conservation programs; or recommend a program that is cost effective and environmentally sound. The No Project Alternative would also not design and implement reliable facilities to help achieve sustainable groundwater management of the Pajaro Valley Groundwater Subbasin by 2040, substantially contribute to the Pajaro Valley's water supply needs in a timely manner, use locally controlled surface water for agricultural purposes to offset groundwater pumping in a manner consistent with habitat preservation and enhancement, and in coordination with resource agencies, the public, and other stakeholders; or make efficient use of, and leverage federal, state, and local investments in, existing Agency infrastructure.

   If the College Lake Project is not implemented, then none of the environmental impacts attributable to the Project (described in DEIR Chapter 3) would occur, including the significant and unavoidable impacts on Important Farmland and from construction noise. However, under current management practices, College Lake is drained starting around mid-March each year to allow for farming on the lake bottom. Juvenile steelhead, a federal threatened species, have been shown to rear in College Lake in the winter and spring prior to their emigration to the ocean as smolts. The peak time of smolt emigration is April and May. Current practices lower the water surface elevation of the lake below the elevation of the existing weir and prevents juvenile steelhead from migrating to the ocean. Juvenile steelhead become trapped immediately upstream of the weir, exposing them to rapidly declining water levels and dissolved oxygen concentrations, increased water temperatures, predation pressures, and potential pump entrainment or impingement. Moreover, as the lake continues to be drawn down over a period of several weeks, the pumped water becomes increasingly turbid. This high turbidity may have adverse effects on steelhead migrating through Salsipuedes Creek from the Corralitos Creek basin. The proposed fish bypass flows, weir design with fish passage, and water management operations associated with the Project would mitigate these adverse effects. In contrast, the adverse existing conditions for steelhead would be expected to persist under the No Project Alternative.

   Additionally, overdraft and seawater intrusion conditions would continue within the Pajaro Valley Groundwater Basin, potentially resulting in land fallowing and significant loss of farmland. Implementation of projects to replace the College Lake Project would result in other, potentially more severe environmental impacts than those associated with the Project as proposed.

PV Water hereby finds that each of the reasons set forth above would be an independent ground for rejecting the No Project Alternative and by itself, independent of any other reason, would justify rejection of the No Project Alternative.

6.4 Farmland Preservation – Lake Deepening Alternative

1. **Description.** This alternative involves deepening parts of College Lake and depositing the excavated materials to raise other parts of the lakebed. This alternative would effectively reduce the areal extent of College Lake water surface compared to that of the Project, resulting in a reduction of wetted area on June 1 during the modeled water years, thus increasing the amount of acreage suitable for farming compared to those of the Project. The Farmland Preservation-Lake Deeping Alternative would include the same components as the Project, although implementation of this alternative would preclude construction of the WTP at the optional site due to a portion of the site being within the fill area.

   A 78.5-acre area at the deepest part of College Lake would be lowered (excavated) by approximately 2.3 feet. The excavated material would be deposited in the southwestern portion of the lake at depths up to 6.2 feet; a transition between these two zones would be included. At a lake level of 62.5 feet North American Vertical Datum of 1988 (NAVD88, the high of the proposed weir), the water surface area would be approximately 256 acres for this alternative, as opposed to 285 acres in the College Lake Project, resulting in a reduction of storage area of approximately 30 acres. The excavation would increase the lake volume below 60 feet NAVD88 by 88 acre-feet and increase the lake volume at 62.5 feet NAVD88 by 35 acre-feet. This alternative would result in a yield of approximately 1,900 to 2,350 acre-feet per year. Operations and maintenance activities for the Farmland Preservation-Lake Deepening Alternative would generally be the same as the Project, but the topographic changes would reduce the inundation area and alter the configuration of proposed maintenance areas within the southwestern portion of the lake.

2. **Finding.** PV Water rejects this alternative as infeasible based on economic considerations (cost), legal considerations (with regard to permitting under Section 404(b)(1) of the Clean Water Act), and environmental considerations (specifically, the potential to increase flooding).

3. **Facts in Support of Findings.** The Farmland Preservation – Lake Deepening Alternative would meet almost all of the Project's objectives. However, the earthwork (as well as changes needed to the tile drains in the lake) would increase capital costs (by approximately $8 million) in comparison to the Project. That, coupled with adverse effects on biological resources, would diminish this alternative's ability to meet the following objective compared to the Project: Recommend a program that is cost effective and environmentally sound. The complexities of permitting this alternative could also delay implementation.

   There are trade-offs, in terms of environmental impacts, between the Farmland Preservation-Lake Deepening Alternative and the Project. The Farmland

Preservation-Lake Deepening Alternative would reduce the conversion of Important Farmland. As noted above, this is a significant and unavoidable impact even with Mitigation Measures LU-1a (Promote Farming), LU-1b (Compensate for Conversion of Important Farmland), and LU-1c (Replacement of Topsoil) because of uncertainties associated with implementing agricultural easements to compensate for conversion of Protected Farmland. However, the Farmland Preservation-Lake Deepening Alternative would also worsen impacts associated with biological resources, flooding, air quality, and cultural resources. In particular, the magnitude of impacts to state and federally protected wetlands would require a substantially larger area of compensatory mitigation to reduce the impact, complicating permitting with regard to Section 404(b)(1) of the Clean Water Act. In addition, this alternative would incrementally increase water surface elevations in certain areas under the 10- and 100-year flood events.

Thus, on balance, the Farmland Preservation-Lake Deepening Alternative has greater economic costs, includes complicated permitting requirements, and has significant environmental impacts with respect to the potential to increase flooding.

PV Water hereby finds that each of the reasons set forth above would be an independent ground for rejecting the Farmland Preservation-Lake Deepening Alternative and by itself, independent of any other reason, would justify rejection of the Farmland Preservation-Lake Deepening Alternative.

6.5 Environmentally Superior Alternative

Compared to the Project as proposed, the No Project alternative's adverse existing conditions for steelhead would be expected to persist, overdraft and seawater intrusion conditions would continue within the Pajaro Valley Groundwater Basin, potentially resulting in land fallowing and significant loss of farmland. Implementation of projects to replace the College Lake Project would result in other, potentially more severe environmental impacts than those associated with the Project as proposed. For these reasons, the No Project Alternative is not considered the environmentally superior alternative.

There are trade-offs, in terms of environmental impacts, between the Farmland Preservation-Lake Deepening Alternative and the Project, as discussed above in Section 6.4 and the rejection of the Farmland Preservation-Lake Deepening Alternative. However, for the reasons stated above, PV Water finds that, on balance, the Farmland Preservation-Lake Deepening Alternative has greater economic costs, includes complicated permitting requirements, and has significant environmental impacts with respect to the potential to increase flooding, and therefore is not environmentally superior to the Project.

6.6 Reasons for Selecting Project as Proposed

PV Water has carefully reviewed the attributes and environmental impacts of all the alternatives analyzed in the EIR and has compared them with those of the Project. PV

Water finds that each of the alternatives is infeasible for various environmental, economic, technical, social, or other reasons set forth above. PV Water further finds, for various environmental, economic, technical, social, or other reasons as stated throughout these Findings and in the record as a whole, that the Project constitutes the best combination of features to serve the public and to implement the goals and objectives of the 2014 BMP Update PEIR as well as the project-specific objectives for the College Lake Project adopted by the PV Water Board on December 20, 2017.

Exhibit B

Statement of Overriding Considerations

CEQA Requirements

The California Environmental Quality Act (CEQA)[1] requires lead agencies to balance the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a project against its unavoidable environmental impacts when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a project outweigh the unavoidable adverse environmental effects, the adverse environmental impacts may be considered "acceptable." The lead agency must state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations must be supported by substantial evidence in the record. The statement of overriding considerations should be included in the record of the project approval and should be mentioned in the notice of determination.

Significant and Unavoidable Impacts

The following Project-related environmental impacts could not be eliminated or reduced to a less-than-significant level with implementation of mitigation measures:

1. **Conversion of Important Farmland.** The Project would result in the conversion of Important Farmland to non-agricultural use. Even with implementation of Mitigation Measures LU-1a (Promote Farming), LU-1b (Compensate for Conversion of Important Farmland), and LU-1c (Replacement of Topsoil), these impacts would be significant and unavoidable on a project-specific and cumulative basis. (Impacts LU-1 and C-LU-1)

   Impact LU-1: The Project would convert Important Farmland to non-agricultural use and could involve changes in the existing environment which, due to their location or nature, could result in conversion of Important Farmland to non-agricultural use.

   Impact C-LU-1: The Project, in combination with past, present, and probable future projects in the Project area, would have a cumulatively considerable impact on the conversion of Important Farmland to non-agricultural use.

   PV Water adopts the following mitigation measures that would support reducing impacts related to converting Important Farmland to non-agricultural use.

   Mitigation Measure LU-1a: Promote Farming. To reduce the amount of Farmland of Statewide Importance and Unique Farmland converted to other uses and in coordination with affected landowners, PV Water shall adopt practices to promote farming within the areas

[1] Public Resources Code Section 21083 et seq; CEQA *Guidelines* Section 15093.

depicted with red hatching on Figure 3.2-4 of the College Lake Integrated Resources Management Project EIR. Such practices may include, but are not limited to, the following:

a. Maintain, improve and potentially expand tile drain systems.

b. If controlling land by easement, establish terms that require landowners to cultivate crops or otherwise productively use the land for agricultural purposes at least once every five years, hydrologic conditions permitting.

c. If acquiring land outright, enter into lease arrangements for the land to be cultivated or otherwise productively used for agricultural purposes at least once every five years, hydrologic conditions permitting.

Mitigation Measure LU-1b: Compensate for Conversion of Important Farmland. Track Conversion of Important Farmland. PV Water shall review the California Department of Conservation's Farmland Mapping and Monitoring Program farmland designations for College Lake annually beginning with the first year of construction and continuing for five years of Project operation. PV Water shall identify Prime Farmland, Farmland of Statewide Importance, and Unique Farmland referred to herein as Important Farmland that is within the College Lake basin below elevation 63 feet NAVD88 that converts due to water management operations.

Establish Memorandum of Understand for Agricultural Easement Fund. PV Water shall enter into a Memorandum of Understanding with the Santa Cruz Land Trust or similar entity. The Memorandum of Understanding shall include details regarding an Agricultural Easement Fund to be paid by PV Water and the timing of acquisition of agricultural easements for the purpose of offsetting impacts on Important Farmland caused by the Project. Acceptance of this fee by the Santa Cruz Land Trust or similar entity shall serve as an acknowledgment and commitment to: (1) secure agricultural easements to offset the conversion of Important Farmland caused by the Project; and (2) provide documentation to PV Water describing the project(s) funded by the mitigation fee. If there is any remaining unspent portion of the Agricultural Easement Fund following implementation, PV Water shall be entitled to a refund in that amount. To qualify under this mitigation measure, the specific agricultural easement acquisition projects must preserve acreage of farmland of an equal or greater Farmland Mapping and Monitoring Program designation value (e.g., Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) within the PV Water service area to offset the permanent conversion of Important Farmland by the Project.

Contribute to Agricultural Easement Fund. PV Water shall initially designate funds to secure easements for up to 6 acres of Prime Farmland to offset impacts associated with the water treatment plant. In addition, for Prime Farmland, Farmland of Statewide Importance, or Unique Farmland within the lake basin that the Department of Conservation converts to non-agricultural designations after the Project has operated for a period of one year, PV Water shall designate for the Agricultural Easement Fund an amount to cover the costs associated

with acquisition of agricultural easements of equivalent Farmland Mapping and Monitoring Program designation value.

Directly Fund Agricultural Easements. As an alternative approach to establishing a memorandum of understanding for, and contributing to an agricultural easement fund, PV Water could elect to directly fund the purchase of agricultural easements for Important Farmland in the Pajaro Valley.

Mitigation Measure LU-1c: Replacement of Topsoil. In agricultural areas, PV Water shall require contractors to stockpile topsoil at Project sites during Project grading and reapply it in situ after construction to promote vegetative growth. In agricultural areas temporarily disturbed by construction and where excavation occurs, the following measures shall apply:

- Strip 18 inches of topsoil from the area excavated unless otherwise stipulated by the landowner. The topsoil shall be stored separately from subsoil and other construction materials.

- Clearly mark topsoil with signs, and store topsoil separately from other excavated and imported materials in such a manner that the topsoil is not damaged, mixed, or covered by subsoil or surface rocks, and so that it is not continually disturbed.

- Stockpile topsoil on the same property from which it was stripped and return topsoil to same property from which it was stripped

2. **Exceedance of Construction Noise Standards.** Construction activities at the preferred WTP site, pipeline alignments (trench construction within 25 feet of residences and trenchless pipeline construction at select locations) would expose nearby sensitive receptors to noise levels that would exceed the County of Santa Cruz construction noise standard, or would occur outside the allowed construction hours identified in the City of Watsonville noise ordinance. Implementation of Mitigation Measure NOI-1a (Construction Noise Reduction Plan) is expected to attenuate construction noise levels; however, noise levels would not be reduced below the County construction noise standard. In addition, construction activities at boring sites within the city limits would occur outside of the allowed hours specified in the City of Watsonville noise ordinance (trenchless construction techniques require 24-hour construction). Therefore, impacts at these Project component locations would remain significant and unavoidable on a project-specific and cumulative basis even with implementation of Mitigation Measures NOI-1a (Construction Noise Reduction Plan) and NOI-1b (Off-site Accommodations for Substantially Affected Nighttime Receptors). (Impacts NOI-1 and C-NOI-1)

Impact NOI-1: Construction of the Project would result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plans or noise ordinances.

Impact C-NOI-1: The Project, in combination with past, present, and probable future projects in the site vicinity, would have a cumulatively considerable impact associated with construction noise.

PV Water adopts the following mitigation measures that would support reducing impacts related to substantial temporary or permanent increases in ambient noise levels and cumulatively consideration noise impacts.

Mitigation Measure NOI-1a: Construction Noise Reduction Plan. PV Water shall develop and implement a Construction Noise Reduction Plan prior to initiating construction at the weir structure and intake pump station, the preferred WTP site, College Lake pipeline (trench construction) and trenchless construction activities near SR 152 and Walker Street. A disturbance coordinator shall be designated for the Project to implement the provisions of the plan. At a minimum, the Construction Noise Reduction Plan shall implement the following measures:

- Distribute to the potentially affected residences and other sensitive receptors within 200 feet of the Project construction site boundaries notice including a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The notice shall identify the noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the reason for the noise complaints and institute actions warranted to correct the problem, if any. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The notice shall also include the construction schedule.

- All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof.

- The use of impact and vibratory pile drivers is limited to the daytime and evening hours permissible under the County of Santa Cruz noise ordinance. All impact pile driving activities shall be restricted to the hours of 8:00 a.m. to 10:00 p.m.

- Maintain maximum physical separation, as far as practicable, between noise sources (construction equipment) and sensitive noise receptors. Separation may be achieved by locating stationary equipment (such as generators) in areas that would minimize noise impacts on the community.

- Impact tools (e.g., jackhammers, pavement breakers) used during construction activities shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools to the extent feasible. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used.

- Use construction noise barriers such as paneled noise shields, blankets, and/or enclosures adjacent to noisy stationary and off-road equipment. Noise control shields, blankets

and/or enclosures shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. This measure does not apply to pipeline construction.

Mitigation Measure NOI-1b: Off-site Accommodations for Substantially Affected Nighttime Receptors. PV Water shall offer to provide temporary hotel accommodations for all residences within 200 feet of where trenchless construction activities would occur at the SR 152 and Walker Street crossings. The accommodations shall be provided for the duration of nighttime drilling activities. PV Water shall provide accommodations reasonably similar to those of the impacted residents (e.g., in terms of the number of beds).

Compelling Overriding Considerations and Project Benefits

The Pajaro Valley Water Management Agency (PV Water) Board of Directors adopts and makes the following Statement of Overriding Considerations regarding the significant, unavoidable impacts of the College Lake Integrated Resources Management Project (Project) and the anticipated benefits of the Project.

The Board has carefully balanced the benefits of the Project against the adverse impacts identified in the EIR that could not be feasibly mitigated to a level of insignificance. Notwithstanding the identification and analysis of impacts that are identified in the EIR as being significant and which could not be eliminated, lessened or mitigated to a level of insignificance, the Board, acting pursuant to CEQA Guidelines Section 15092 and 15093, hereby determines that significant effects on the environment found to be unavoidable above (permanent conversion of Important Farmland, noise impacts during construction), are acceptable due to overriding concerns described herein. Based on the objectives identified in the Project and EIR, the Board has determined that the Project should be approved, and the unmitigated environmental impacts attributable to the Project are outweighed by the following specific environmental, technological, economic, fiscal, and other overriding considerations, each one being a separate and independent basis upon which to approve the Project. Substantial evidence in the record demonstrates that PV Water would drive the benefits listed below from adoption and implementation of the Project.

A. Land use within the Pajaro Valley is primarily agricultural, with crop values estimated at approximately $900,000,000 annually. Approximately 95 percent of the water used in the Pajaro Valley is pumped groundwater. In the Pajaro Valley Groundwater Basin, groundwater levels have declined as a result of long-term groundwater overdraft. These overdraft conditions have caused groundwater levels within the basin to drop below sea level, creating a landward pressure gradient that causes seawater to flow inland and mix with fresh groundwater. As seawater encroaches into the fresh groundwater basin, water quality degrades, limiting its use for irrigation and domestic purposes. Intrusion into freshwater aquifers also results in a loss of freshwater storage capacity. Seawater intrusion creates progressive increases in the concentrations of chloride, boron, magnesium, and other constituents in groundwater; chloride is used as an indicator constituent of seawater intrusion.

B. The extent of seawater intrusion has increased in the coastal part of the basin. Numerous wells in the coastal area have had substantial increases in chloride concentrations over the last few decades, indicating that the volume of freshwater displaced in the intruded area continues to increase. Although total demands and agricultural groundwater pumping amounts were lower in 2016-2018 than in previous years, the total amounts of groundwater pumping continue to exceed the total amounts of groundwater recharging, on average, so the cumulative groundwater overdraft and seawater intrusion rates continue to increase. These conditions are not expected to improve without reductions in groundwater pumping and development and delivery of supplemental water supplies.

C. PV Water was formed in 1984 by the Pajaro Valley Water Management Agency Act, for the primary purpose of managing groundwater resources and supplemental water supplies in its service area. The 2014 Sustainable Groundwater Management Act designated PV Water as the exclusive Groundwater Sustainability Agency within its service area (Water Code Section 10723), and in 2015 the Board agreed that PV Water would be this Groundwater Sustainability Agency.

D. Historical, existing, and future conditions of the groundwater basin within PV Water's service area were modeled utilizing the Pajaro Valley Hydrologic Model. This modeling confirms that projects built and implemented by PV Water to date have reduced, but have not eliminated, the seawater intrusion and the groundwater overdraft problems. The basin's 30-year average annual deficit is estimated to be approximately 12,100 AFY.

E. In 2014, the Board adopted the Basin Management Plan (BMP) Update. The BMP Update consists of three primary components to eliminate the estimated 12,100 acre feet per year deficit: conservation of existing water supplies, development of new water supplies, and optimization of existing water supplies. The objectives of the BMP Update are:

- Prevent seawater intrusion, long-term groundwater overdraft, land subsidence, and water quality degradation;
- Manage existing and supplemental water supplies to control overdraft and provide for present and future water needs;
- Create a reliable, long-term water supply, which has been identified as an important cornerstone of the long-term economic vitality of the Pajaro Valley;
- Develop water conservation programs; and
- Recommend a program that is cost effective and environmentally sound.

F. The Sustainable Groundwater Management Act of 2014 requires critically overdrafted, high priority groundwater basins, like the Pajaro Valley Groundwater Basin, to be managed under a Groundwater Sustainability Plan, or approved Alternative, by January 31, 2020, and to achieve sustainability by 2040. In July 2019, the California Department of Water Resources approved the Basin Management Plan Update and associated documents as functionally equivalent to a Groundwater Sustainability Plan.

G. The Project is the potential new water supply project identified in the BMP Update with the largest estimated new water supply yield: approximately 1,800 to 2,300 acre feet per year, depending on hydrologic conditions. The Project would advance all of the BMP Update objectives, with the exception of development of water conservation programs. The Project would not impede that objective; it simply would not directly advance the objective. In addition to the BMP Update objectives, the Project would implement the following Project-specific objectives:

- Design and implement reliable facilities to help achieve sustainable groundwater management of the Pajaro Valley Groundwater Subbasin by 2040, taking into account potential future hydrologic changes, including those associated with climate change.
- Substantially contribute to the Pajaro Valley's water supply needs in a timely manner, consistent with the Basin Management Plan Update implementation goals.
- Use locally controlled surface water for agricultural purposes to offset groundwater pumping in a manner consistent with habitat preservation and enhancement, and in coordination with resource agencies, the public, and other stakeholders.
- Make efficient use of, and leverage federal, state, and local investments in, existing Agency infrastructure.

H. Absent the Project, it is anticipated that groundwater overdraft conditions will continue to worsen and the additional water supply provided by the Project will not exist. This is expected to have detrimental impacts on agricultural operations in the service area. The Project is therefore important from a long-range planning perspective for the creation of a viable source of water.

I. The Project will improve conditions for certain threatened species. Under current management practices, College Lake is drained starting around mid-March each year to allow for farming on the lake bottom. Juvenile steelhead, a species considered threatened under the federal Endangered Species Act, have been shown to rear in College Lake in the winter and spring prior to their emigration to the ocean as smolts. The peak time of smolt emigration is April and May. Current practices lower the water surface elevation of the lake below the elevation of the existing weir and prevent juvenile steelhead from migrating to the ocean. Juvenile steelhead become trapped immediately upstream of the weir, exposing them to rapidly declining water levels and diminishing dissolved oxygen concentrations, increased water temperatures, predation pressures, and potential pump entrainment or impingement. Moreover, as the lake continues to be drawn down over a period of several weeks, the pumped water becomes increasingly turbid. This high turbidity may have adverse effects on steelhead migrating through Salsipuedes Creek from the Corralitos Creek basin. The proposed fish bypass flows, weir design with fish passage, and water management operations associated with the Project would mitigate these adverse effects.

J. The Project incorporates all feasible mitigation measures to reduce potential environmental impacts to the greatest extent feasible. No feasible mitigation measures have been identified to fully mitigate the significant and unavoidable adverse effects of the Project.

Based on the detailed findings made above, the Board hereby finds that environmental, technological, legal, and economic considerations outweigh the remaining environmental effects of approval and implementation of the Project, and the Board hereby concludes that the Project should be approved.

EXHIBIT C

Mitigation Monitoring and Reporting Program – College Lake Integrated Resources Management Project

Introduction

Section 21081.6 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Program (MMRP) whenever it approves a project for which mitigation measures have been required to mitigate or avoid significant effects on the environment. The purpose of the MMRP is to ensure compliance with the mitigation measures during project implementation.

The Environmental Impact Report (EIR) for the College Lake Integrated Resources Management Project (Project) concluded that implementation of the Project could result in significant effects on the environment and identified mitigation measures that have been adopted as conditions of Project approval to reduce or eliminate those significant effects. This MMRP addresses those measures in terms of how and when they will be implemented.

This document does not discuss those subjects for which the EIR concluded that the impacts from implementation of the project would be less than significant.

Table C-1, below, provides the following information and direction:

- **Mitigation Measures:** The first column lists the required mitigation measures by number identified in the EIR.
- **Project Component:** The second column lists the Project component(s) that the mitigation measures are applicable to.
- **Mitigation Schedule:** The third column lists the timing as to when the mitigation measure is to be implemented.
- **Monitoring/Reporting Responsibility:** The fourth column identifies PV Water and/or the entity responsible for implementing the mitigation measure.
- **Verification of Compliance by PV Water:** The final column provides a verification tool to ensure that the monitoring and reporting actions are followed.

TABLE C-1
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Land Use and Agricultural Resources				
LU-1a: Promote Farming To reduce the amount of Farmland of Statewide Importance and Unique Farmland converted to other uses and in coordination with affected landowners, PV Water shall adopt practices to promote farming within the areas depicted with red hatching on Figure 3.2-4 of the College Lake Integrated Resources Management Project EIR. Such practices may include, but are not limited to, the following: • Maintain, improve and potentially expand tile drain systems. • If controlling land by easement, establish terms that require land owners to cultivate crops or otherwise productively use the land for agricultural purposes at least once every five years, hydrologic conditions permitting. • If acquiring land outright, enter into lease arrangements for the land to be cultivated or otherwise productively used for agricultural purposes at least once every five years, hydrologic conditions permitting.	CL	4. Post construction	PV Water	
LU-1b: Compensate for Conversion of Important Farmland *Track Conversion of Important Farmland.* PV Water shall review California Department of Conservation's Farmland Mapping and Monitoring Program farmland designations for College Lake annually beginning with the first year of construction and continuing for five years of Project operation. PV Water shall identify Prime Farmland, Farmland of Statewide Importance, and Unique Farmland referred to herein as Important Farmland that is within the College Lake basin below elevation 63 feet NAVD88 that converts due to water management operations. *Establish Memorandum of Understand for Agricultural Easement Fund.* PV Water shall enter into a Memorandum of Understanding with the Santa Cruz Land Trust or similar entity. The Memorandum of Understanding shall include details regarding an Agricultural Easement Fund to be paid by PV Water and the timing of acquisition of agricultural easements for the purpose of offsetting impacts on Important Farmland caused by the Project. Acceptance of this fee by the Santa Cruz Land Trust or similar entity shall serve as an acknowledgment and commitment to: (1) secure agricultural easements to offset the conversion of Important Farmland caused by the Project; and (2) provide documentation to PV Water describing the project(s) funded by the mitigation fee. If there is any remaining unspent portion of the Agricultural Easement Fund following implementation, PV Water shall be entitled to a refund in that amount. To qualify under this mitigation measure, the specific agricultural easement acquisition projects must preserve acreage of farmland of an equal or greater Farmland Mapping and Monitoring Program designation value (e.g., Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) within the PV Water service area to offset the permanent conversion of Important Farmland by the Project. *Contribute to Agricultural Easement Fund.* PV Water shall initially designate funds to secure easements for up to 6 acres of Prime Farmland to offset impacts associated with the water treatment plant. In addition, for Prime Farmland, Farmland of Statewide Importance, or Unique Farmland within the lake basin that the Department of Conservation converts to non-agricultural designations after the Project has operated for a period of one year, PV Water shall designate for the Agricultural Easement Fund an amount to cover the costs associated with acquisition of agricultural easements of equivalent Farmland Mapping and Monitoring Program designation value. *Directly Fund Agricultural Easements.* As an alternative approach to establishing a memorandum of understanding for, and contributing to an agricultural easement fund, PV Water could elect to directly fund the purchase of agricultural easements for Important Farmland in the Pajaro Valley.	CL WTP	2. Pre-Construction 3. Construction 4. Post Construction	PV Water Santa Cruz Land Trust (Potential)	

TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Land Use and Agricultural Resources (cont.)				
LU-1c: Replacement of Topsoil In agricultural areas, PV Water shall require contractors to stockpile topsoil at Project sites during Project grading and reapply it in situ after construction to promote vegetative growth. In agricultural areas temporarily disturbed by construction and where excavation occurs, the following measures shall apply: • Strip 18 inches of topsoil from the area excavated unless otherwise stipulated by the landowner. The topsoil shall be stored separately from subsoil and other construction materials. • Clearly mark topsoil with signs, and store topsoil separately from other excavated and imported materials in such a manner that the topsoil is not damaged, mixed, or covered by subsoil or surface rocks, and so that it is not continually disturbed. • Stockpile topsoil on the same property from which it was stripped and return topsoil to same property from which it was stripped.	W WTP CLP	3. Construction 4. Post Construction	Contractor to implement; PV Water to monitor	
Surface Water, Groundwater, and Water Quality				
****HWQ-1:** PVWMA shall require contractors to apply for all applicable NPDES permits, including dewatering permits, develop a SWPPP for construction of proposed facilities, and comply with conditions of the permit(s), as required by the CCRWQCB. The objectives of the SWPPP are to identify pollutant sources that may affect the quality of stormwater discharge and to implement BMPs to reduce pollutants in stormwater discharges. The SWPPP for this proposed action would include the implementation, at a minimum, of the following elements: • Source identification • Preparation of a site map • Description of construction materials, practices, and equipment storage and maintenance • List of pollutants likely to contact stormwater • Estimate of the construction site area and percent impervious area • Erosion and sedimentation control practices, including soils stabilization, revegetation, and runoff control to limit increases in sediment in stormwater runoff, such as detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sandbag dikes • Proposed construction dewatering plans • Provisions to eliminate or reduce discharge of materials to stormwater • Description of waste management practices • Maintenance and training practices	W WTP CLP	2. Pre-Construction 3. Construction	Contractor to implement; PV Water to monitor	

NOTES: CL = College Lake; W = Weir Structure; WTP = Water Treatment Plant; CLP = College Lake Pipeline

TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Surface Water, Groundwater, and Water Quality (cont.)				
****HWQ-2**: Rapid, imposed water-level fluctuations shall be avoided within the sloughs, Salsipuedes Creek, and the Pajaro River to minimize erosion and failure of exposed (or unvegetated), susceptible banks. This can be accomplished by operating the pumps at an appropriate flow rate, in conjunction with commencing operation of the pumps only when suitable water levels or flow rates are measured in the water body. Criteria for minimizing fluctuations and/or protecting banks from related erosion will need to be developed, as some banks presently are stable and others are not. Control is important, as the mobilized sediment also impairs in-slough habitat values, and potentially exacerbates bacterial levels in the slough system. It may be that water-level fluctuations may be controlled as well to minimize other impacts, such as desiccation of amphibian eggs or waterlogging of agricultural soils adjacent to the sloughs.	W	1. Design	PV Water	X
****HWQ-3:** If pumping rates in existing wells fall below levels that can support existing or planned land uses, and the reduction in pumping can be attributed to one or many of the project components, then one of several measures may be undertaken to mitigate the loss of pumping. These mitigation measures may include: 1. Improving irrigation efficiency 2. Modifying irrigation and agricultural operations 3. Lowering the pump in the irrigation well 4. Lowering and changing the pump in the irrigation well 5. Adding storage capacity for irrigation supply 6. Replacing the irrigation well 7. Replacing the irrigation water source. To determine if well production loss can be attributed to one of the project components, the PVWMA will allow well owners to enroll in a monitoring and mitigation program (MMP). PVMWA will collect baseline data necessary for establishing significant impacts only from wells that are enrolled in the MMP. If a well is not enrolled in the MMP, to claim a significant impact the well owner will need to provide adequate and reliable baseline data. To claim a significant impact for each well enrolled in the MMP, PVWMA will first establish baseline irrigation well extraction rates, drawdowns, and water quality near planned components. Pumping rate reductions and changes in water quality from these baseline values will be analyzed to assess whether or not they are caused by the project. A pumping rate reduction or adverse change in water quality is assumed to be caused by the Project if: 1) it occurs at the same time as the onset of operations of BMP Update component(s); 2) it occurs in an area reasonably predicted to be affected by the BMP Update component(s); 3) static groundwater levels have dropped; 4) pumping groundwater levels have not dropped more than static groundwater levels; and 5) no other obvious reason exists for the drop in production capacity. For PVWMA or others to identify another reason for loss of production it must be based on the written professional opinion of a qualified hydrogeologist that will be submitted to the PVWMA staff or their designee, for review and concurrence.	CL W	4. Post Construction	PV Water	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Surface Water, Groundwater, and Water Quality (cont.)				
****HWQ-4:** Facilities shall be designated to comply with FEMA and County of Santa Cruz requirements to floodproof the facilities and shall not exacerbate upstream or downstream flood hazards on other properties. The FEMA process will require identification of the FEMA floodway zone and may require no increase water elevations for a one percent chance annual flood. The FEMA process will require identification of the FEMA zone type and may require no increase water elevations for a one percent chance annual flood. To meet the specific FEMA requirements for the component, substantial modifications to the facility design and additional mitigation may be required.	W WTP	1. Design	PV Water	X
HYD-1: Implement Dewatering Best Management Practices for In-Water Construction For in-water construction during pipeline installation activities, PV Water shall require its contractor(s) to prepare a Dewatering Plan. The Dewatering Plan shall identify best management practices that ensure construction activities at Salsipuedes and Pinto Creeks meet water quality objectives. This work shall be timed to take place as flows are receding and only after instream measures to reduce downstream turbidity are in place. In addition, PV Water shall require its contractors to implement the measures below, and water quality protection measures required by the RWQCB. 1. All work performed in-water shall be completed in a manner that meets the water quality objectives to ensure the protection of beneficial uses as specified in the 2017 Basin Plan. 2. All dewatering and diversion methods shall be installed such that natural flow is maintained upstream and downstream of the Project area. 3. Any temporary dams or diversion shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the Project area. 4. Screened pumps shall be used in accordance with CDFW's fish screening criteria and in accordance with the NMFS Fish Screening Criteria for Anadromous Salmonids and the Addendum for Juvenile Fish Screen Criteria for Pump Intakes. 5. Cofferdams shall remain in place and functional throughout the in-stream construction. 6. Disturbance of protected riparian vegetation shall be limited or avoided entirely.	W WTP CLP	2. Pre-Construction 3. Construction	Contractor to implement, PV Water to monitor	
HYD-2a: Water Quality Adaptive Management for College Lake To learn about potential impacts of the Project on College Lake water quality and the quality of downstream water bodies, PV Water shall monitor College Lake water for indications of Cyanobacteria blooms. When the proposed weir crest is elevated to 62.5 feet NAVD88, PV Water shall monitor College Lake water temperature within the water column to establish whether a thermocline develops. PV Water shall use results of this monitoring to support the development of the Adaptive Management Plan (refer to Section 2.7) that establishes management actions to minimize the conditions that can contribute to algal blooms, including cyanobacteria blooms, such that this impact is mitigated.	CL	4. Post Construction	PV Water	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Surface Water, Groundwater, and Water Quality (cont.)				
HYD-2b: Scour Analysis for Pinto Creek Crossing To reduce Project impacts on erosion and sedimentation, PV Water shall evaluate the potential for scour and channel bank erosion due to the Pinto Creek pipeline crossing. The analysis shall recommend a design depth for the pipeline crossing that avoids scour, estimated using standard engineering methods. PV Water shall implement the pipeline depth that avoids scour in final project design.	CLP	1. Design 2. Pre-Construction	PV Water	
HYD-3: Avoid Flooding at Pajaro Dunes During Pumped Flow PV Water shall not pump flow exceeding fish passage requirements into Salsipuedes Creek until receiving approval from the Santa Cruz County Flood Control District indicating that pumped flow can occur without lagoon breaching, based on current water surface elevation conditions in Pajaro Lagoon. Existing hypsometric curves will be used to develop a lookup table to relate capacity of College Lake and Pajaro Lagoon that will assess whether pumped flows would require lagoon breaching. PV Water pumped flows shall not result in lagoon water surface elevations exceeding the threshold elevation identified based on the lookup table. The College Lake operations plan will discuss scenarios where lake draining activities may supersede lagoon flooding and breaching activities.	CL	4. Post construction	PV Water	
Biological Resources				
****BIO-1a:** Wetlands and riparian habitat will be avoided by project construction activities. All facilities and construction activities will be maintained outside the jurisdictional area defined by riparian or emergent wetland vegetation and applicable setbacks and buffers where feasible. Within the Coastal Zone, project improvements will be located 100 feet from coastal review wetlands. Within the City of Watsonville, development will be located 100 feet from riparian areas. Within the unincorporated areas of the County, yet outside the Coastal Zone, a setback of 30 feet and 50 feet will be established adjacent to intermittent and perennial streams, respectively. If complete avoidance of wetlands and riparian areas is infeasible and/or development occurs within a regulated buffer/setback area, impacts would be minimized through implementation of Mitigation Measures BIO-1b, BIO- 1c BIO-1d, and BIO-1e.	W CLP	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	PV Water	
****BIO-1b:** Standard measures to maintain water quality and to control erosion and sedimentation will be implemented. These measures include: • Restrict trenching across all waterways to low-flow periods. • Exclude water from around the section of trench that is within the actively flowing channels. This will further reduce the potential for sediment or other pollutants to enter the waterways and impact downstream resources. The diversion will consist of water pillows, rock, sandbags, or other structural methods deemed most effective by the project engineer. • Place sediment curtains downstream of the construction zone to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone. • Locate spoil sites so they do not drain directly into the waterways. If a spoil site drains into a channel, catch basins will be constructed to intercept sediment before it reaches the channels. Spoil sites will be graded to reduce the potential for erosion.	W CLP	2. Pre-Construction 3. Construction 4. Post Construction	Contractor to implement, PV Water to monitor	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
• Prepare and implement a spill prevention plan for potentially hazardous materials. The plan will include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting of any spills. If necessary, containment berms will be constructed to prevent spilled materials from reaching the creek channels. • Store equipment and materials away from the waterways, outside existing levees or at least 50 feet from waterways, but within the pipeline right-of-way. No equipment or materials will be deposited within 100 feet of wetlands. • Provide proper and timely maintenance for vehicles and equipment used during construction to reduce the potential for mechanical breakdowns leading to a spill of materials into or around the creeks. Maintenance and fueling will be conducted in an area that meets the criteria set forth in the spill prevention plan (i.e., away from the creeks). • Prior to construction, install temporary construction fencing at the perimeter of the construction zone to prevent inadvertent equipment access or construction staging within adjacent riparian forest and/or coastal marsh habitats. This fencing will be signed in the field as "SENSITIVE HABITAT AREA — NO CONSTRUCTION ACCESS". Monitor construction activities to verify compliance with the perimeter fencing and limits of construction access and staging and implement remedial action if non-compliance is noted. • Restrict limbing of riparian forest trees; if trees are limbed for construction access, document the impact and provide compensation as per Mitigation Measure BIO-1c.				
****BIO-2:** During the development of BMP Update components, PVWMA will implement conservation measures during construction activities to avoid and minimize incidental take and significant impacts on individuals, populations, or habitat of special-status wildlife species to the maximum extent practicable. The following general measures will be incorporated into the planning and construction of BMP Update components, as appropriate, to ensure that the effects of the BMP Update are avoided, minimized, and mitigated. Suggested species-specific measures for CA red-legged frog, WPT, and steelhead are included, as well, although BMP Update components that proposed to divert surface waters beyond existing entitlements would require future additional project-level CEQA analyses of specific diversion and operation plans to support water rights application and environmental permits. It is assumed that project-level biological studies and analysis for these BMP Update components will be required to support those future permits and biological opinions.	W WTP CLP	Varies (se Mitigation Measures BIO-2a through 2p)	PV Water	
****BIO-2a:** During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
****BIO-2b:** All refueling, maintenance, and staging of equipment and vehicles will occur at least 65 feet from any riparian habitat or water body. The Agency will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the Agency will ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
****BIO-2c:** The spread or introduction of invasive exotic plant species will be avoided to the extent practicable. When practicable, invasive exotic plants in the project areas will be removed.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
****BIO-2d:** Prior to any on-site work in areas where special-status species may occur, a qualified biologist will conduct a tailgate training session in which all construction personnel will receive training regarding measures (below) that are to be implemented to avoid environmental impacts. This training will include a presentation of the potential for sensitive species to occur at the site and measures to protect habitat including aquatic habitat and avoid impacts to the species. All personnel working on the site will receive this training, and will sign a sign-in sheet showing they received the training.	W WTP CLP	3. Construction	PV Water and qualified biologist	
****BIO-2e:** Prior to the commencement of work, the limits of the work area (including haul routes, access ramps, storage areas and material stockpiles) will be clearly marked with orange construction fencing to prevent workers from impacting habitat outside the work area. No work will occur outside the designated marked work areas.	W WTP CLP	2. Pre-Construction	Contractor to implement, PV Water to monitor	
****BIO-2f:** Each morning before work begins on any components in or within 100 feet of a suitable habitat area (defined as: riparian habitat, USACE jurisdictional wetlands or "other waters" of the U.S., or sensitive habitats identified in subsequent USFWS Biological Opinions and CDFW 1600 Lake and Streambed Alteration Agreements), a qualified monitor will survey the work site and habitat immediately surrounding the active work site for conditions that could impact special-status species, and will remain on-site whenever work is occurring that may adversely impact special-status species and their habitats. No work will be allowed to begin each morning until the monitor has inspected the work site.	W CLP	3. Construction	PV Water and qualified biologist	
****BIO-2g:** A USFWS-approved biologist or biological monitor will permanently remove from within the project area(s), any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes to the extent practicable.	W WTP CLP	2. Pre-Construction 3. Construction	PV Water and qualified biologist	
****BIO-2h:** Upon locating individuals of special-status species that are dead or injured as a direct result of activities conducted by PVWMA, initial notification will be made to the USFWS's Division of Law Enforcement at (916) 978-4861 (Sacramento) within three working days of its finding. The USFWS Field Office within whose area of responsibility the specimen is recovered will also be notified. Written notification will be made within five calendar days and include the date, time, and location of the carcass, a photograph, cause of death, if known, and any other pertinent information.	W WTP CLP	2. Pre-Construction 3. Construction	PV Water and qualified biologist	
****BIO-2i.1:** Develop Adaptive Management Plan for College Lake Waterfowl Management and Multi- Species Mitigation. To mitigate impacts to existing waterfowl or waterfowl habitat at College Lake, an Adaptive Management Plan for waterfowl management and multi-species mitigation will be developed with the consultation of the state and federal resource agencies and College Lake stakeholders. The Adaptive Management Plan for waterfowl management and multi-species mitigation at College Lake will develop multi-year baseline waterfowl population and habitat use data for future project design, environmental permitting and CEQA impact analysis of project-level alternatives. To the extent practical, it will integrate the results of ongoing College Lake hydrology and hydraulic analyses, as well as future consultations with state and federal agencies on fish flows and fish bypass criteria.	CL	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	PV Water	

NOTES: CL = College Lake; W = Weir Structure; WTP = Water Treatment Plant; CLP = College Lake Pipeline

TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
The Management Plan will be specific to the level of impact and mitigations under site-specific and project implementation conditions. However, the following standards will apply as defined during project-level design, regulatory review and CEQA analysis: The Management Plan should include terms and conditions from applicable permits and agreements as appropriate and define provisions for monitoring assignments, scheduling, and responsibility. The Management Plan should also include habitat replacement and revegetation, protection during ground-disturbing activities, performance standards, maintenance criteria, and monitoring requirements for temporary and permanent impacts consistent with mitigation in this EIR and regulatory requirements during project- specific review. The Management Plan will be in conformance with the biology mitigation measures from this EIR, and will also include terms and conditions consistent regulatory requirements as applicable from the USFWS, USACE, SWRCB, and CDFW permits during project design and permitting as applicable. The Management Plan will be prepared for project level project implementation as determined needed through future CEQA review and consultation with agencies as required under CESA and ESA.				
****BIO-2l (FISH):** The following measures are required to reduce impacts to special status fisheries, including steelhead and resident rainbow trout, to a less-than- significant level: FISH-1. A NOAA Fisheries-approved, qualified fisheries biologist would be onsite to provide preconstruction training on steelhead life-history to construction crews and to provide daily monitoring during construction activities. FISH-2. If the preliminary construction concept proposes the use of temporary coffer dams for isolating the work areas at the upstream and downstream extent of the project, installation and removal of the temporary coffer dams would be monitored by the qualified fisheries biologist. FISH-3. Following initial construction of the coffer dam bypass system, isolated standing water would be pumped from the work area to adjacent vegetated terraces, settling tanks or back into the river, if turbidity is not elevated more than 10% of background turbidity levels. FISH-4. If a work site is to be temporarily de-watered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent steelhead or other native fish from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. FISH-5. The installation and removal of the coffer dam structures would be controlled to minimize turbidity in the water. FISH-6. The use of best management practices would be implemented to reduce the probability of sediment and/or contaminated material from entering the creek.	W	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	PV Water and qualified biologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
****BIO-2m:** No water shall be diverted from College Lake from the time the lake begins filling in late fall/early winter through the end of the smolt outmigration period (approximately May 31 or June 15) unless sufficient bypass flows are provided at the dam for unimpeded adult upstream migration through March 31, and sufficient bypass flows are provided at the dam for unimpeded smolt outmigration through May 31. The precise bypass flow levels required to achieve unimpeded migrations are not known at this time. After May 31 or June 15, the entire storage of College Lake could potentially be diverted. College Lake would likely be too warm to allow summer rearing by steelhead, especially in the presence of warm water predatory fishes.	W	1. Design 4. Post Construction	PV Water	
****BIO-2n:** Protection of Steelhead Migratory Habitat – HWQ-Impacts to steelhead migration passage shall be minimized by carrying out construction in College Lake/Casserly Creek/Salsipuedes Creek after June 1 and prior to November 1, during which time adults and smolts do not migrate through the area.	W	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
****BIO-2o:** Protection of Steelhead Migratory Habitat - The proposed College Lake with Inland Pipeline to Coastal Distribution System component shall be operated such that it complies with all minimum required bypass flow requirements during the steelhead migration period, including those developed through a new bypass flow study to be conducted by a qualified fisheries biologist in consultation with the relevant regulatory agencies.	W	4. Post Construction	PV Water and qualified biologist	
****BIO-2p:** The PVWMA shall install and operate surface-water streamflow gaging stations on Casserly Creek upstream and on Salsipuedes Creek downstream of the proposed College Lake diversion structure to monitor available diversion inflows and to provide and document future Biological Opinion-required fish bypass flows.	W	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	PV Water	
****BIO-3a:** Occurrences of special status plant species shall be avoided by project construction activities to the extent feasible. All facilities and construction activities will be maintained outside habitats supporting special status plant species where feasible. Prior to construction, a qualified biologist will conduct a survey of the project area to ascertain the presence or absence of special status plant species. If no species are encountered, no mitigation is required. If a special status species is found within a BMP Update component project area, a setback of 50 feet will be established between the occurrence and the BMP Update construction activities. Prior to construction, PVWMA will install temporary construction fencing at the 50-foot setback line to prevent inadvertent equipment access or construction staging within the special status plant habitat. This fencing will be signed in the field as "SENSITIVE HABITAT AREA - NO CONSTRUCTION ACCESS". A qualified biologist will inspect the temporary construction barrier fence and monitor the contractor's compliance with this avoidance measure. If complete avoidance of special status plant species is infeasible, impacts would be minimized through implementation of Mitigation Measure BIO-3b.	W WTP CLP	1. Design 2. Pre-Construction 3. Construction	PV Water and qualified biologist	
****BIO-3b:** Prior to clearing and grubbing in areas where impacts to special status plant species cannot be avoided, PVWMA will consult with applicable resource agencies (i.e., CDFW and/or USFWS) prior to implementing salvage and revegetation actions. A qualified biologist will collect any available above- ground seed pods/seed heads for their use in future revegetation efforts. During construction, the upper 6 inches of topsoil from areas supporting the plant species will be stripped from the construction area and stored for later use. The topsoil will be used in future revegetation efforts which may be on-site (if feasible) or at an off-site location approved by permitting agencies (i.e., USFWS, CDFW). At the designated revegetation area, all stockpiled topsoil will be placed on site and finish graded to blend with surrounding topography. Under direction of a qualified biologist, the areas will be revegetated with locally native herbaceous plant species compatible with natural regeneration of the special status plant species. The qualified biologist will hand broadcast any seeds collected from the special status plant species into	W WTP CLP	2. Pre-Construction 3. Construction 4. Post Construction	PV Water and qualified biologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
the appropriate habitat areas. The revegetation will achieve a minimum of 2:1 plant replacement (i.e., re- establish two plants for every plant impacted). The qualified biologist will monitor the revegetation areas for two years after construction to ascertain if the special status plant species re-established within the revegetation area. Annual reports will be submitted to permitting agencies by December 31 of each monitoring year, describing the results of the revegetation measures, for a period of 5 years.				
BR-1a: Fish Relocations Prior to, or concurrent with, draining of College Lake and/or dewatering of the construction site, special-status and other native fish species shall be captured and relocated by a qualified fisheries biologist. The following measures shall be taken to minimize harm and mortality to steelhead and other native fish resulting from fish relocation and dewatering activities: 1. Fish relocation shall be performed by a qualified fisheries biologist, with all necessary state and federal authorizations. Captured fish shall be moved to the nearest appropriate site outside of the work area. A record of relocation activities shall be maintained and include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the Project site, and the number and species of fish captured and relocated; 2. Electrofishing shall be conducted by properly trained personnel following NOAA Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act, June 2000. 3. Prior to capturing fish, the most appropriate release location(s) shall be determined. 4. The most efficient method for capturing fish shall be determined by the biologist. Complex stream habitat generally requires the use of electrofishing equipment, whereas in outlet pools, fish may be concentrated by pumping-down the pool and then seining or dip-netting fish. 5. Handling of salmonids shall be minimized. However, when handling is necessary, hands or nets shall be wetted prior to touching fish. 6. Captured fish shall be held in cool, shaded, aerated water in a container with a lid. Aeration shall be provided with a battery-powered external bubbler. Fish shall be protected from jostling and noise, and shall not be removed from this container until time of release. 7. Air and water temperatures shall be measured periodically. A thermometer shall be placed in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature. If water temperature reaches or exceeds 18 degrees Celsius, fish shall be released and rescue operations ceased, if feasible. 8. Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year fish from larger age-classes to avoid predation. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations. 9. Species and year-class of fish shall be visually estimated at time of release. The number of fish captured shall be counted and recorded. Anesthetization or measuring fish shall be avoided unless requested by appropriate resource agencies (NMFS, CDFW).	CL W	2. Pre-Construction 3. Construction	PV Water and qualified biologist	

NOTES: CL = College Lake; W = Weir Structure; WTP = Water Treatment Plant; CLP = College Lake Pipeline

TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
10. Fish relocation activities are typically restricted to the period of June 15 through November 1. However, draining of College Lake may have to commence prior to June 1 to ensure the lake is fully drained prior to the start of construction. If lake draining commences prior to June 1 (as it regularly does under existing conditions), fish relocations would be timed accordingly. Given that steelhead present at the time of draining are likely to be smolts attempting to reach the ocean, pre-June 1 relocations concurrent with lake draining would ensure suitable downstream passage conditions and timing for relocated smolts.				
BR-1b: Frac-out Contingency Plan If HDD installation is implemented, PV Water shall require the contractor to retain a licensed geotechnical engineer to develop a Frac-out Contingency Plan. PV Water would submit the Frac-out Contingency Plan to the appropriate resource agencies (CDFW, RWQCB, USACE, USFWS, and NMFS) for review prior to the start of construction of any pipeline that would use HDD installation to avoid surface waters. The Frac-out Contingency Plan shall be implemented where HDD installation under a waterway will occur to avoid, minimize, or mitigate for potential Project impacts during HDD installation, as specified in the Frac-out Contingency Plan. The Frac-out Contingency Plan shall include, at a minimum:	CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
1. Measures describing training of construction personnel about monitoring procedures, equipment, materials and procedures in place for the prevention, containment, clean-up (such as creating a containment area and using a pump, using a vacuum truck, etc.), and disposal of released bentonite slurry, and agency notification protocols; 2. Methods for preventing frac-out including maintaining pressure in the borehole to avoid exceeding the strength of the overlying soil. 3. Methods for detecting an accidental release of bentonite slurry that include: (a) monitoring by a minimum of one biological monitor throughout drilling operations to ensure swift response if a frac-out occurs; (b) continuous monitoring of drilling pressures to ensure they do not exceed those needed to penetrate the formation; (c) continuous monitoring of slurry returns at the exit and entry pits to determine if slurry circulation has been lost; and (d) continuous monitoring by spotters to follow the progress of the drill bit during the pilot hole operation, and reaming and pull back operations. 4. Protocols that the contractor would follow if there is a loss of circulation or other indicator of a release of slurry. 5. Cleanup and disposal procedures and equipment the contractor would use if a frac-out occurs. 6. If a frac-out occurs, the contractor shall immediately halt work, implement the measures outlined in Item 5 of the Frac-out Contingency Plan to contain, clean-up, and dispose of the bentonite slurry, and, if the frac-out occurs in the water channel, notify and consult with the staffs of the agencies listed above before HDD activities can begin again. PV Water shall require the contractor to implement Frac-out Contingency Plan to ensure that measures are implemented to prevent frac-out and if a frac-out occurs, implement measures to contain, clean-up, and dispose of the bentonite slurry.				

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
BIO-1c (Revised) Where construction impacts on mixed riparian or willow riparian forest occur, revegetation and restoration measures will be developed as part of a revegetation plan approved by CDFW, RWQCB, and if applicable, USACE and/or California Coastal Commission, pursuant to regulatory agency permitting. The revegetation plan will include specific plans for the revegetation of impacted riparian forest, and for restoration of nearby creek riparian habitat, as appropriate. Upon approval by applicable agencies, PV Water may choose to coordinate with the Natural Resources Conservation Service and the Santa Cruz County Resource Conservation District (RCD) to develop and implement the required riparian revegetation, including providing funds to the RCD for their implementation of the revegetation. Revegetation measures will include the use of locally obtained plant materials, detailed descriptions of installation methods, after-installation care, weed control measures, success criteria, and corrective measures if the success criteria are not met. Temporarily impacted areas will be restored to pre-construction conditions with equivalent or greater habitat quality. Revegetation will include a 3:1 replacement ratio of the acreage of riparian habitat lost and for all trees lost as result of the Project to account for the reduced habitat values of smaller trees compared with mature vegetation. Success criteria for replanting will be less than 20 percent mortality of individual species annually for 5 years. Replanting will be conducted each year that plantings exceed 20 percent mortality, such that 80 percent plant survival is maintained each year of the 5-year monitoring period. Cover provided by invasive, non-native plant species shall not exceed 5 percent during each year of the 5-year monitoring period.	W CLP	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	PV Water	
BIO-1d (Revised) Where construction impacts on open water (creeks, streams, jurisdictional ditches), seasonal wetlands, or coastal freshwater marsh occurs, revegetation and restoration measures will be developed as part of a revegetation plan approved by CDFW, RWQCB, USACE, California Coastal Commission, and/or Santa Cruz County, pursuant to regulatory agency permitting. Upon approval by applicable agencies, PV Water may choose to coordinate with the Natural Resources Conservation Service and the Santa Cruz County RCD to develop and implement the required wetland revegetation and restoration, including providing funds to the RCD for their implementation of the revegetation and restoration. The revegetation plan will include specific plans for the revegetation of impacted wetlands, and for restoration of nearby wetland habitat, as appropriate. Revegetation measures will include the use of locally obtained plant materials, detailed descriptions of installation methods, after-installation care, weed control measures, success criteria, and corrective measures if the success criteria are not met. Temporarily impacted areas will be restored to pre-construction conditions with equivalent or greater habitat quality. Revegetation will include a 3:1 replacement ratio (or an equivalent habitat replacement strategy as agreed upon by PV Water and regulatory agencies) for impacted wetlands. If natural recovery is a viable strategy, then a wetland plant cover exceeding 50 percent should be attained after two growing seasons. Mitigation may occur via restoration, creation, or preservation of wetlands or waters. Mitigation will occur at a site acceptable to permitting agencies and pursuant to the Project's permit requirements. If the compensatory mitigation includes restoration, enhancement, or creation of wetlands or waters, a qualified biologist will monitor the designated wetland mitigation area for a minimum of five years to ascertain if the wetland mitigation is successful. Annual reports will be submitted to permitting agencies by December 31 of each monitoring year, describing the results of the monitoring and any remedial actions needed to achieve a minimum 3:1 habitat replacement ratio or equivalent for permanent impacts on wetlands.	W CLP	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	PV Water	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
BR-1c: Avoid and Minimize Impacts on Special-status Bat Species A qualified biologist who is experienced with bat surveying techniques, behavior, roosting habitat, and identification of local bat species shall be consulted prior to initiation of construction activities to conduct a preconstruction habitat assessment to characterize potential bat habitat and identify active roost sites. The preconstruction habitat assessment shall be conducted within 100 feet of construction activities conducted in and around riparian habitat. Should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in trees and/or structures to be disturbed under the Project, the following measures shall be implemented: 1. Removal or disturbance of trees or structures (e.g. the existing weir and intake pump station) identified as potential bat roosting habitat or active roosts shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These dates avoid bat maternity roosting season (approximately April 15 to August 31) and periods of winter torpor (approximately October 15 to February 28). 2. If removal or disturbance of trees and structures identified as potential bat roosting habitat or active roosts during the periods when bats are active is not feasible, a qualified biologist would conduct pre-construction surveys within 14 days prior to disturbance to further evaluate bat activity within the potential habitat or roost site. a. If active bat roosts are not identified in potential habitat during preconstruction surveys, no further action is required prior to removal of- or disturbance to trees and structures within the preconstruction survey area. b. If active bat roosts or evidence of roosting is identified during pre-construction surveys, the qualified biologist shall determine, if possible, the type of roost and species. i. If special-status bat species or maternity or hibernation roosts are detected during these surveys, appropriate species- and roost-specific avoidance and protection measures shall be developed by the qualified biologist in coordination with CDFW. Such measures may include postponing the removal of structures or trees, or establishing exclusionary work buffers while the roost is active. A minimum 100-foot no disturbance buffer shall be established around special-status species, maternity, or hibernation roosts until the qualified biologist determines they are no longer active. The size of the no-disturbance buffer may be adjusted by the qualified biologist, in coordination with CDFW, depending on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site, and if construction would not alter the behavior of the adult or young in a way that would cause injury or death to those individuals. Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist. ii. If a non-maternity or hibernation roost (e.g., bachelor daytime roost) is identified, disturbance to- or removal of trees or structures may occur under the supervision of a qualified biologist as described under measure 3).	W WTP CLP	2. Pre-Construction 3. Construction	PV Water and qualified biologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
3. The qualified biologist shall be present during tree and structure disturbance or removal if active non-maternity or hibernation bat roosts or potential roosting habitat are present. Trees and structures with active non-maternity or hibernation roosts or potential habitat shall be disturbed or removed only under clear weather conditions when precipitation is not forecast for three days and when nighttime temperatures are at least 50 degrees Fahrenheit, and when wind speeds are less than 15 mph. a. Trimming or removal of trees with active (non-maternity or hibernation) or potentially active roost sites shall follow a two-step removal process: i. On the first day of tree removal and under supervision of the qualified biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using hand tools (e.g., chainsaws). ii. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be removed, either using hand tools or other equipment (e.g. excavator or backhoe). iii. All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches. b. Disturbance to or removal of structures containing or suspected to contain active bat (non-maternity or hibernation) or potentially active bat roosts shall be done in the evening and after bats have emerged from the roost to forage. Structures shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost. Removal would be completed the subsequent day. 4. Bat roosts that begin during construction are presumed to be unaffected as long as a similar type of construction continues, and no buffer would be necessary. Direct impacts on bat roosts or take of individual bats would be avoided.				
BR-1d: Avoidance and Minimization Measures for San Francisco Dusky-Footed Woodrat 1. A qualified wildlife biologist shall conduct preconstruction surveys for San Francisco dusky-footed woodrat in the Salsipuedes Creek riparian corridor within the existing and proposed weir structure and intake pump station work area. The surveys shall be conducted within 14 days prior to the start of construction in suitable habitat and shall identify any woodrat nests located within 50 feet of anticipated construction disturbance areas. 2. If woodrat nests are found during the preconstruction surveys, the wildlife biologist shall conduct additional surveys throughout the duration of construction activities at the Project site to identify any newly constructed woodrat nests. 3. If nests are observed outside of the construction area, the qualified biologist shall demarcate a minimum 50-foot buffer area with orange construction fencing and require that all construction activities and disturbance remain outside of the fencing.	W	2. Pre-Construction 3. Construction	PV Water and qualified biologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
4. Active woodrat nests located within the anticipated construction disturbance areas shall be relocated. Nests shall be relocated outside of the peak breeding season as feasible to minimize disturbance to young woodrats. Woodrat breeding season is December to September with peak breeding in mid-spring. Relocation of woodrats and/or their nests shall be conducted by the qualified wildlife biologist as follows: a. Clear understory vegetation from around the nest using hand tools. b. After all vegetative cover has been cleared around the nest, the biologist shall gently disturb the nest to encourage the woodrat(s) to abandon the nest and seek cover in adjacent habitat. c. Once the woodrats have left the nest, the biologist shall carefully relocate the nest sticks within 50 feet of the original nest location and map the location of the original nest location and relocated nest location on an aerial image of the Project site. The location of the relocated nest will offer a mix of sun and shade and be no closer than 20 feet from an existing SFDW nest. Relocation areas will be as close as possible to the original locations in similar habitat and contain biologically-suitable habitat features (e.g., stands of poison oak, coast live oaks, and dense native brush). If multiple nests are relocated, the stick piles shall be placed at least 20 feet from one another. d. The qualified biologist supervising woodrat nest relocation shall ensure potential health hazards to the biologists moving nests are addressed to minimize the risk of contracting diseases associated with woodrats and woodrat nests. These include hantavirus, Lyme disease, and plague. The biologists that relocate nests shall take the following precautionary safety measures: i. Wear a Cal/OSHA-certified facial respirator to reduce inhalation of potential disease causing organisms. ii. Wear a white Tyvec protective suit to provide a barrier for ticks and fleas and facilitate their detection and removal and use gloves. e. If young woodrats are encountered during dismantling of the nest, nest material shall be replaced and a 50-foot no-disturbance buffer shall be established around the active nest. The buffer shall remain in place until the young woodrats have matured enough to disperse on their own accord and the nest is no longer active. Nesting substrate shall then be collected and relocated to suitable habitat outside of the Project area				
BIO-1e (Revised) Where construction and/or facilities are placed within a riparian or wetland development setback area (as defined in the Santa Cruz County Municipal Code), indirect impacts on adjacent riparian and wetland vegetation will be minimized. Where feasible, buffer plantings of native trees and shrubs will be installed between the facility and the adjacent wetland or riparian resource to provide a vegetated buffer. A buffer planting plan will be prepared as part of a revegetation plan approved by CDFW, RWQCB, USACE, and/or California Coastal Commission, pursuant to regulatory agency permitting. The buffer planting plan will include specific revegetation measures, including the use of locally obtained plant materials, detailed descriptions of installation methods, after-installation care, weed control measures, success criteria, and corrective measures if the success criteria are not met.	W CLP	1. Design 2. Pre-Construction 3. Construction	PV Water	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
BIO-2i: Nesting Bird Surveys (Revised) Prior to any project construction or maintenance activities, the project proponent will take the following steps to avoid direct losses of nests, eggs, and nestlings and indirect impacts on avian breeding success: • If construction or maintenance activities occur only during the non-breeding season, between August 31 and February 1, no surveys will be required. • During the breeding bird season (February 1 through August 31), a qualified biologist will survey construction or maintenance areas in the vicinity of the Project site for nesting raptors and passerine birds not more than 14 days prior to any ground-disturbing activity or vegetation removal. • Surveys will include all potential habitats within 500 feet (for raptors) of activities and all onsite vegetation including bare ground within 250 feet of activities (for all other species). • If results are positive for nesting birds, avoidance procedures will be adopted, if necessary, on a case-by-case basis. These may include implementation of buffer areas (minimum 50-foot buffer for passerines and 250-foot minimum buffer for raptors) or seasonal avoidance	W WTP CLP	2. Pre-Construction 3. Construction	PV Water and qualified biologist	
BIO-2j: CRF (Revised) The following measures for avoidance and minimization of adverse impacts on California Red-Legged Frog (*Rana draytonii*) (CRF) during construction and maintenance of the Project are those typically employed for construction activities that may result in short-term impacts on individuals and their habitat. The focus of these measures is on scheduling activities at certain times of year, keeping the disturbance footprint to a minimum, and monitoring. Consultation with the USFWS will be conducted and a Biological Opinion developed for each BMP Update component that requires a USACE Section 404 Wetland Permit. Ongoing and future CRF studies in the Project area may result in site-specific conditions that would be integrated into the future project-level BMP component designs, permitting and operations. CRF-1 through CRF-9 would apply only to Project locations identified as CRF habitat. CRF-1. PV Water will annually submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities would begin until the Agency receives approval from the Service that the biologist(s) is qualified to conduct the work. CRF-2. A USFWS-approved biologist will survey the construction or maintenance site 48 hours prior to the onset of activities. If CRF, tadpoles, or eggs are found, the approved biologist will determine the closest appropriate relocation site. The approved biologist will be allowed sufficient time to move them from the work site before work activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and moving of CRF. CRF-3. Before any construction or maintenance activities begin on a project, a USFWS -approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the CRF and its habitat, the importance of the CRF and its habitat, general measures that are being implemented to	W CLP	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	PV Water and qualified biologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
conserve the CRF as they relate to the Project, and the boundaries within which the Project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. CRF-4. A USFWS-approved biologist will be present at the construction or maintenance site until such time as all removal of CRF, instruction of workers, and disturbance of habitat have been completed. After this time, the biologist will designate a person to monitor on-site compliance with all minimization measures and any future staff training. The USFWS-approved biologist will ensure that this individual receives training outlined in measure WPT-2 and in the identification of CRF. The monitor and the USFWS-approved biologist will have the authority to stop work if CRF are in harm's way. CRF-5. The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Routes and boundaries will be clearly demarcated, and these areas will be outside of riparian and wetland areas to the extent practicable. CRF-6. Construction and maintenance activities will be completed between April 1 and November 1 to the extent practicable. Should the Agency demonstrate a need to conduct activities outside this period, the Agency may conduct such activities after obtaining USFWS approval. CRF-7. If a construction or maintenance site is to be temporarily dewatered by pumping, and would take place within or adjacent to suitable CRF habitat, intakes will be completely screened with wire mesh not larger than five millimeters to prevent CRF from entering the pump system where applicable. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction or maintenance activities, any barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. CRF-8. The Declining Amphibian Populations Task Force's Fieldwork Code of Practice will be followed to minimize the possible spread of chytrid fungus or other amphibian pathogens and parasites. CRF-9: Implement Mitigation Measure HWQ-1 through HWQ-4 in Section 3.3, Surface Water, Groundwater, and Water Quality.				
BIO-2k: WPT (Revised) The following measures for avoidance and minimization of adverse impacts on western pond turtle (*Actinemys marmorata*) (WPT) during construction and maintenance of the Project are those typically employed for construction activities that may result in short-term impacts on individuals and their habitat. The focus of these measures is on keeping the disturbance footprint to a minimum and aggressive monitoring of WPTs before vegetation removal and during the construction and revegetation phase. WPT-1. PV Water will annually submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities will begin until proponents have received approval from CDFW that the biologist(s) is qualified to conduct the work. WPT-2. A CDFW-approved biologist will survey the work site 48 hours prior to the onset of construction or maintenance activities. If WPT adults or juveniles are found, the approved biologist will determine the closest	W CLP	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	PV Water and qualified biologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Biological Resources (cont.)				
appropriate relocation site. The approved biologist will be allowed sufficient time to move them from the work site before work activities begin. Only CDFW-approved biologists will participate in activities associated with the capture, handling, and moving of WPT. If WPT eggs or nests are found, no work will be conducted within a 50-foot radius of the nest. Work can resume within the 50-foot radius once the eggs hatch and the juveniles have left the area. WPT-3. Before any construction or maintenance activities begin on a project, a CDFW-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the WPT and its habitat, the importance of the WPT and its habitat, general measures that are being implemented to conserve the WPT as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. WPT-4. A CDFW-approved biologist will be present at the construction or maintenance site until such time as all removal of WPT, instruction of workers, and disturbance of habitat have been completed. WPT-5. The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the project plans. Routes and boundaries will be clearly demarcated. Where impacts occur in these staging areas and access routes, restoration will occur as identified in the general best management practices measures above				
BR-2: Invasive Fish Species Control Plan PV Water shall develop an Invasive Fish Species Control Plan. PV Water would submit the plan to the appropriate resource agencies (CDFW, USFWS, and NMFS) for approval within one year of Project implementation. The Fish Species Control Plan shall be implemented at College Lake within two years of Project implementation. The Fish Species Control Plan shall include, at a minimum: 1. Measures describing PV Water's methods of draining College Lake to the greatest extent feasible; 2. Measures describing PV Water's methods, equipment, and timing of invasive species eradication efforts to be conducted in association with lake drawdown efforts; 3. Measures describing the frequency at which invasive species control efforts are to be implemented.	CL	4. Post Construction	PV Water	
Air Quality and Greenhouse Gases				
****AQ-1:** The construction contractor shall implement a dust program that includes the following elements: • Water all active construction sites at least twice daily • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard • Pave, apply water three times daily, or apply (non- toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites • Sweep daily (with water sweepers) all paved access roads, paved parking areas and paved staging areas at construction sites	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Air Quality and Greenhouse Gases (cont.)				
• Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. • Hydroseed or apply (non-toxic) soil binders to inactive construction areas. However, do not apply these measures in operating agricultural fields under cultivation unless requested by the grower • Enclose, cover, water twice daily or apply (non- toxic) soil binders to exposed stockpiles (dirt, sand, etc.). • Limit traffic on unpaved roads to 15 mph • Install sandbags or other erosion control measures to prevent silt runoff to public roadways • Replant vegetation in disturbed areas as quickly as possible • The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.				
Geology and Soils				
GS-1 (Revised) Future construction of proposed BMP Update facilities shall be designed in accordance with design recommendations of geotechnical reports and in compliance with applicable policies and appropriate engineering investigation practices necessary to reduce the potential detrimental effects of ground shaking and liquefaction. Construction shall be in accordance with applicable requirements regarding mitigation of seismic and geologic hazards, and appropriate geotechnical studies shall be conducted.	W WTP CLP	1. Design	PV Water and qualified engineer	
GS-2 (Revised) Construction of future BMP Update facilities shall include preparation and implementation of erosion control plans to minimize erosion and inadvertent transport of sediments into water bodies during installation of facilities. Measures shall include, but not be limited to: limiting the area of ground disturbance and vegetation removal at any one time during construction; conducting work prior to the rainy season if possible and protecting disturbed areas during the rainy season; installing bales or other appropriate barriers adjacent to water bodies to prevent transport of sediments into sloughs and water courses; immediately revegetating disturbed areas; and other Best Management Practices during construction to protect water quality. All grading and construction shall conform to applicable requirements.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
GS-3 (Revised) All diversion and pipeline facilities shall be designed and engineered in accordance with recommendations of a geotechnical report and appropriate engineering designs to reduce the potential detrimental effects of expansive soils, corrosivity, and/or other identified soils constraints. A licensed geotechnical engineer shall prepare recommendations applicable to foundation design, earthwork, and site preparation prior to or during the project design phase. Recommendations will address mitigation of site- specific, adverse soil and bedrock conditions that could hinder development. Project engineers shall implement the recommendations. Geotechnical design and design criteria will comply with applicable codes and requirements of the California Building Code (CCR Title 24).	W WTP CLP	1. Design	PV Water and qualified geotechnical engineer	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Geology and Soils (cont.)				
GEO-1: Inadvertent Discovery of Paleontological Resources If construction or other Project personnel discover any potential fossils during construction, work at the discovery location shall cease in a 50-foot radius of the discovery until a qualified paleontologist meeting the Society of Vertebrate Paleontology standards has assessed the discovery and made recommendations as to the appropriate treatment. If the find is deemed significant, it shall be salvaged following the standards of the Society of Vertebrate Paleontology and curated with a certified repository. Following a discovery, the qualified paleontologist shall also provide PV Water with recommendations regarding future paleontological monitoring, if deemed warranted.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
Hazards and Hazardous Materials				
****HM-1:** Prior to initiation of earthwork activities, PVWMA shall perform soil testing on agricultural sites proposed for development and analytically test for pesticide residuals and pesticide-related metals arsenic, lead, and mercury. If contamination is identified in the soil samples above applicable levels, PVWMA shall prepare a Site Management Plan (SMP) to establish protocols/guidelines for the contractor including: identification of appropriate health and safety measures while working in contaminated areas; soil reuse; handling, and disposal of any contaminated soils; and agency notification requirements. The SMP shall be subject to the review and approval of the appropriate regulatory agency.	W WTP CLP	1. Design 2. Pre-Construction	PV Water	
HM-2 (Revised) Prior to initiation of earthwork activities on properties along the College Lake pipeline alignment not sampled as part of adopted Mitigation Measure HM-1, PV Water shall perform a Phase I Environmental Site Assessment for the alignment to determine the potential for encountering hazardous materials contamination in soils to be excavated and identify appropriate recommendations. Appropriate health and safety measures shall be identified as needed for worker safety, soil handling, and disposal of contaminated soils.	CLP	1. Design 2. Pre-Construction 3. Construction	PV Water	
HAZ-1a: Health and Safety Plan (HASP) Using information from the soil testing performed as part of adopted Mitigation Measure HM-1 and from the Phase I Environmental Site Assessment performed as part of adopted Mitigation Measure HM-2, PV Water shall require the construction contractor(s) to prepare and implement a site-specific HASP in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. The HASP shall include, but is not limited to, the following elements: 1. Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site HASP; 2. A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals based on the most recent data collection and reporting; 3. Specified personal protective equipment and decontamination procedures, if needed; 4. Emergency procedures, including route to the nearest hospital; and 5. Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	

NOTES: CL = College Lake; W = Weir Structure; WTP = Water Treatment Plant; CLP = College Lake Pipeline

TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Hazards and Hazardous Materials (cont.)				
These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of unknown discovered or suspected hazardous materials release and notifying the Santa Cruz County CUPA (415-473-7085).				
HAZ-1b: Soil Management Plan (SMP) Using information from the soil testing performed as part of adopted Mitigation Measure HM-1 and from the Phase I Environmental Site Assessment performed as part of adopted Mitigation Measure HM-2, PV Water or its contractor shall develop and implement an SMP that includes a materials disposal plan specifying how the construction contractor shall remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The plan shall identify protocols for training workers to recognize potential soil contamination (such as soil staining, noxious odors, debris or buried storage containers), soil testing and disposal by a qualified contractor in the event that contamination is identified, and identification of approved disposal sites (e.g., approved landfill or reuse site). Contract specifications shall mandate approval of the SMP by PV Water as well as full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
Noise and Vibration				
NOI-1a: Construction Noise Reduction Plan PV Water shall develop and implement a Construction Noise Reduction Plan prior to initiating construction at the weir structure and intake pump station, the preferred WTP site, College Lake pipeline (trench construction) and trenchless construction activities near SR 152 and Walker Street. A disturbance coordinator shall be designated for the Project to implement the provisions of the plan. At a minimum, the Construction Noise Reduction Plan shall implement the following measures: • Distribute to the potentially affected residences and other sensitive receptors within 200 feet of the Project construction site boundaries notice including a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The notice shall identify the noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the reason for the noise complaints and institute actions warranted to correct the problem, if any. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The notice shall also include the construction schedule. • All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof. • The use of impact and vibratory pile drivers is limited to the daytime and evening hours permissible under the County of Santa Cruz noise ordinance. All impact pile driving activities shall be restricted to the hours of 8:00 a.m. to 10:00 p.m. • Maintain maximum physical separation, as far as practicable, between noise sources (construction equipment) and sensitive noise receptors. Separation may be achieved by locating stationary equipment (such as generators) in areas that would minimize noise impacts on the community.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Noise and Vibration (cont.)				
• Impact tools (e.g., jack hammers, pavement breakers) used during construction activities shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools to the extent feasible. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. • Use construction noise barriers such as paneled noise shields, blankets, and/or enclosures adjacent to noisy stationary and off-road equipment. Noise control shields, blankets and/or enclosures shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. This measure does not apply to pipeline construction				
NOI-1b: Off-site Accommodations for Substantially Affected Nighttime Receptors PV Water shall offer to provide temporary hotel accommodations for all residences within 200 feet of where trenchless construction activities would occur at the SR 152 and Walker Street crossings. The accommodations shall be provided for the duration of nighttime drilling activities. PV Water shall provide accommodations reasonably similar to those of the impacted residents (e.g., in terms of the number of beds).	CLP	3. Construction	PV Water	
NOI-2: Vibration Monitoring Plan Prior to construction, PV Water shall require the pipeline construction contractor to develop a Vibration Monitoring Plan in coordination with a structural engineer, geotechnical engineer, and construction contractor if trenchless construction methods are used at the following intersections: East Lake Avenue/Palm Avenue/Hushbeck Avenue, East Beach Street/Lincoln Street, and 2nd Street/Walker Street. The Vibration Monitoring Plan shall include the following elements: • To mitigate vibration, the Vibration Monitoring Plan shall include measures such that surrounding buildings will be exposed to less than 0.25 in/sec PPV for historic or potentially historic buildings to prevent building damage. Measures may include restricting the use of vibratory pile driving and drill rigs from operating within 13 and 19 feet from historic structures, respectively. • With permission of applicable property owners, conduct a pre-construction survey of buildings and other sensitive structures within the area of potential effects due to vibration-generating activities. Respond to any claims by inspecting the affected property promptly, but in no case more than five working days after the claim was filed. Any new cracks or other changes in structure will be compared to preconstruction conditions and a determination made as to whether the Project could have caused such damage. In the event that the Project is demonstrated to have caused any damage, such damage will be repaired to the pre-existing conditions.	CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
Transportation and Traffic				
****TR-1:** Conduct a preconstruction survey of road conditions on key access routes to the project sites (e.g., San Andreas Road). The pavement conditions of local streets judged to be in good condition for use by heavy truck traffic shall be monitored. Roads damaged by construction shall be repaired to a structural condition equal to, or better than, that which existed prior to construction activity.	W WTP CLP	1. Design 2. Pre-Construction 3. Construction 4. Post Construction	Contractor to implement, PV Water to monitor	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Transportation and Traffic (cont.)				
TRA-1a: Encroachment Permits PV Water shall require the construction contractor to obtain any necessary road encroachment permits from the appropriate local jurisdiction (i.e., City of Watsonville, Santa Cruz County) prior to constructing each Project component and shall comply with the conditions of approval attached to all Project permits and approvals.	CLP	2. Pre-Construction 3. Construction	Contractor to implement, PV Water to monitor	
TRA-1b: Construction Traffic Control/Traffic Management Plan PV Water shall require the construction contractor to prepare a Construction Traffic Control/Traffic Management Plan and submit it to the appropriate local jurisdiction (i.e., City of Watsonville, Santa Cruz County) for review and approval prior to construction. The plan shall be prepared in accordance with professional engineering standards and may include, but not be limited to, the following elements as appropriate: • Identify hours of construction for each Project component. • Schedule truck trips outside of peak morning and evening commute hours when feasible to minimize adverse impacts on traffic flow if agencies with jurisdiction over the affected roads identify highly congested roadway segments during their review of the encroachment permit applications. Haul routes that minimize truck traffic on local roadways and residential streets shall be used. • Develop circulation and detour plans to minimize impacts on local street circulation. This may include the use of signing and flagging to guide vehicles, bicyclists, and pedestrians through and/or around the construction zone. • Control and monitor construction vehicle movements by enforcing current standard construction specifications as defined by the appropriate local jurisdiction (i.e., City of Watsonville, Santa Cruz County) through periodic onsite inspections by the construction contractor. • Install traffic control devices where traffic conditions warrant, as specified in the applicable jurisdiction's standards (e.g., the California Manual of Uniform Traffic Controls for Construction and Maintenance Work Zones). • Perform construction that crosses on-street and off-street bikeways, sidewalks, and other walkways in a manner that allows for safe access for bicyclists and pedestrians. Alternatively, provide safe detours to reroute affected bicycle/pedestrian traffic. • Consult with the Santa Cruz Metro at least one month prior to construction to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service. • Comply with roadside safety protocols to reduce the risk of accidents, as defined in the Caltrans Division of Construction Code of Safe Practices and the California Manual of Uniform Traffic Controls for Construction and Maintenance Work Zones. Provide "Road Work Ahead" warning signs and speed control (including signs informing drivers of state-legislated double fines for speed infractions in a construction zone) to achieve required speed reductions for safe traffic flow through the work zone. • Store all equipment and materials in designated contractor staging areas.	W WTP CLP	2. Pre-Construction 3. Construction	Contractor to implement, PV Water to monitor	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Transportation and Traffic (cont.)				
• Encourage construction crews to park at staging areas to limit lane closures in the public rights-of-way. • Include a plan and implementation process for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities at least one week in advance. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints. • Include a plan and implementation process to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times. Include a plan and implementation process to coordinate all construction activities with the Pajaro Valley Unified School District at least two months in advance. The Pajaro Valley Unified School District shall be notified of the timing, location, and duration of construction activities. PV Water shall coordinate with the Pajaro Valley Unified School District to identify peak circulation periods at schools along the College Lake pipeline alignment (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods, if feasible. The construction contractor for each Project component shall be required to ensure that construction of the Project component does not inhibit vehicle, bicycle, pedestrian, and/or school bus service through inclusion of such provisions in the construction contract. The assignment of temporary crossing guards at designated intersections may be needed to enhance pedestrian safety during Project construction. • Identify all roadway locations where special construction techniques (e.g., trenchless pipeline installation or night construction) will be used to minimize impacts on traffic flow. Require all open trenches and pits be covered with metal plates at the end of each workday to accommodate traffic and access.				
Cultural Resources				
****CR-1a:** Final pipeline and facility plans shall locate facilities and pipeline alignments away from identified and recorded archaeological sites in each component area based on a site reconnaissance and archaeological investigation conducted by a qualified archaeologist at the time site-specific construction plans are developed. The archaeologist shall identify the areal extent of potential recorded sites, assess potential significance to identified resources, recommend adjustment to siting of improvements, facilities and/or pipeline alignments, if necessary, and provide other recommendations to avoid impacts to identified significant resources. If a significant or potentially significant archaeological or historic resource is identified pursuant to the definitions in the State CEQA Guidelines as identified above, the consulting archaeologist shall develop an appropriate mitigation plan for the cultural resource. Possible mitigation measures for important cultural resources may include monitoring by a qualified archaeologist during construction at identified sensitive sites, documentation and recordation of the resource, recovery and relocation, or stabilization of the resource.	CL W WTP CLP	1. Design	PV Water and qualified archaeologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Cultural Resources (cont.)				
****CR-1b:** The cultural resource boundaries of potentially significant sites shall be marked as exclusion zones both on ground and on construction maps prior to the commencement of construction activities on component sites. Construction supervisory personnel shall be notified of the existence of cultural resources in each component area and will be required to keep personnel and equipment away from these cultural resources sites. During construction and operational phases, personnel and equipment will be restricted to each surveyed corridor for each component.	See Measure CUL-1e	See Measure CUL-1e	See Measure CUL-1e	Superseded by Measure CUL-1e
** **CR-1c:** Should any as yet undiscovered cultural resources be uncovered at any component site, such as structural features, or unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any development activities, work will be suspended and PVWMA staff will be contacted. A qualified professional archaeologist shall be retained and will perform any necessary investigations to determine the significance of the find. PVWMA will then implement any mitigation deemed necessary for the recordation and/or protection of the cultural resources. In addition, pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work must be halted and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.	See Measure CUL-1h	See Measure CUL-1h	See Measure CUL-1h	Superseded by Measure CUL-1h
CUL-1a: Retention of a Qualified Archaeologist Prior to start of any ground-disturbing activities (i.e., demolition, pavement removal, pot-holing or auguring, boring, drilling, grubbing, vegetation removal, brush clearance, weed abatement, grading, excavation, trenching, or any other activity that has potential to disturb soil), PV Water shall retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (codified in 36 CFR Part 61; 48 FR 44738-44739) to oversee and ensure that all mitigation related to archaeological resources is carried out.	W WTP CLP	2. Pre-Construction 3. Construction	PV Water and qualified archaeologist	
CUL-1b: Pre-Construction Phase I Cultural Resources Survey Prior to the start of any ground-disturbing activity, the qualified archaeologist shall conduct a pre-construction Phase I Cultural Resources Survey of all areas that have not been previously surveyed within the last five years. The survey shall document resources potentially qualifying as historical resources or unique archaeological resources under CEQA. The qualified archaeologist shall document the results of the survey in a Phase I Cultural Resources Survey Report that follows Archaeological Resource Management Reports (ARMR): Recommended Contents and Format. The qualified archaeologist shall also prepare Department of Parks and Recreation 523 forms for resources encountered during the survey, which shall be appended to the report. If historic architectural resources are encountered that could potentially be impacted by the Project, the qualified archaeologist shall consult with a Qualified Architectural Historian meeting the Secretary of the Interior's Professional Qualifications Standards for architectural history (codified in 36 CFR Part 61; 48 FR 44738-44739). The qualified archaeologist shall submit the draft Phase I Cultural Resources Survey Report to PV Water at least 90 days prior to the start of ground disturbance. The qualified archaeologist shall submit the final Phase I Cultural Resources Survey Report to the Northwest Information Center.	W WTP CLP	2. Pre-Construction	PV Water and qualified archaeologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Cultural Resources (cont.)				
In the event resources potentially qualifying as historical resources or unique archaeological resources under CEQA are identified during the survey, avoidance and preservation in place shall be the preferred manner of mitigating impacts to the resources. Preservation in place maintains the important relationship between artifacts and their archaeological context and also serves to avoid conflict with traditional and religious values of groups who may ascribe meaning to the resource. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance of archaeological resources is determined by PV Water to be infeasible in light of factors such as the nature of the find, Project design, costs, and other considerations, then the portion of the resource within the Area of Direct Impact shall be subject to presence/absence testing and if potentially significant deposits are identified, the resource shall be evaluated for significance under all four National Register/California Register Criteria (A/1-D/4). If a resource is found to be significant (i.e., meets the definition for historical resource in CEQA *Guidelines* Section 15064.5(a) or unique archaeological resource in Public Resources Code Section 21083.2(g)), the qualified archaeologist shall develop an Archaeological Data Recovery and Treatment Plan for the resource. When assessing significance and developing treatment for resources that are Native American in origin, the qualified archaeologist and PV Water shall consult with the appropriate Native American representatives.				
CUL-1c: Development of a Cultural Resources Monitoring and Mitigation Program The qualified archaeologist shall prepare a Cultural Resources Mitigation and Monitoring Program (CRMMP) based on the final approved Project design plans. The CRMMP shall be submitted to PV Water at least 60 days prior to the start of any ground-disturbing activities. The CRMMP shall include: • *Provisions for Archaeological Monitoring.* The CRMMP shall outline the archaeological monitor(s) responsibilities and requirements (refer to Mitigation Measure CUL-1f). The qualified archaeologist, in consultation with PV Water, shall have the ability to modify monitoring frequencies (i.e., either increase, decrease, or discontinue entirely) at all locations described below, based on soil observations (if it is determined that the likelihood of encountering intact significant resources is low due to disturbances or soil types, monitoring may be decreased or cease entirely) or discoveries (discovery of archaeological resources may warrant increased frequency of monitoring). – Full-time archaeological monitoring shall be required during all ground disturbance in the following locations: ▪ Areas shaded purple and green on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR that are within agricultural fields (i.e., not within paved roadway right-of-ways). ▪ The area along Maple Street/2nd Street between Main Street and Union Street within the City of Watsonville. ▪ Within 100 feet of Environmentally Sensitive Areas established through implementation of Mitigation Measure CUL-1e. – Part-time archaeological monitoring consisting of one 8-hour day per week shall be conducted during ground disturbance in the following locations (as noted above, the frequency of monitoring may be modified if conditions warrant):	W WTP CLP	1. Design 2. Pre-Construction 3. Construction	PV Water and qualified archaeologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Cultural Resources (cont.)				
▪ Areas shaded purple on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR that are within paved roadway right-of-ways (i.e., not within agricultural fields), with the exception of area along Maple Street/2nd Street between Main Street and Union Street, which requires full-time monitoring as outlined above. ▪ Areas shaded orange on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR that are within agricultural fields (i.e., not within paved roadway right-of-ways). – Part-time archaeological monitoring consisting of one 4-hour day per week shall be conducted during ground disturbance in the following locations (as noted above, the frequency of monitoring may be modified if conditions warrant): ▪ Areas shaded orange on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR that are within paved roadway right-of-ways (i.e., not within agricultural fields). • *Procedures for Discovery of Archaeological Resources.* Procedures to be implemented in the event of an archaeological discovery shall be fully defined in the CRMMP, and shall include stop-work and protective measures, notification protocols, procedures for significance assessments, and appropriate treatment measures, and shall address procedures for when an archaeological monitor is present, and when one is not present. The CRMMP shall state avoidance or preservation in place is the preferred manner of mitigating impacts to historical resources and unique archaeological resources, but shall provide procedures to follow should PV Water determine that avoidance is infeasible in light of factors such as the nature of the find, Project design, costs, and other considerations. See also Mitigation Measure CUL-1h. If, based on the recommendation of the qualified archaeologist, it is determined that a discovered archaeological resource constitutes a historical resource or unique archaeological resource pursuant to CEQA and data recovery through excavation is the only feasible mitigation available, an Archaeological Resources Data Recovery and Treatment Plan shall be prepared and implemented by the qualified archaeologist in coordination with PV Water that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource. PV Water, or its designee, shall consult with appropriate Native American representatives in determining treatment of resources that are Native American in origin to ensure cultural values ascribed to the resource, beyond those that are scientifically important, are considered. • *Procedures for Discovery of Human Remains and Associated Funerary Objects.* The CRMMP shall outline the protocols and procedures to be followed in the event that human remains and associated funerary objects are encountered during construction. These shall include stop-work and protective measures, notification protocols, and compliance with California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 (refer to Mitigation Measure CUL-2). • *Reporting Requirements.* The CRMMP shall outline provisions for weekly, monthly, and final reporting. The qualified archaeologist shall prepare weekly status reports detailing activities and locations observed (including maps) and summarizing any discoveries for the duration of monitoring to be submitted to PV Water via e-mail for each week in which monitoring activities occur. Monthly progress reports summarizing monitoring efforts shall be prepared and submitted to PV Water for the duration of ground disturbance. The qualified				

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Cultural Resources (cont.)				
• archaeologist shall prepare a draft Archaeological Resources Monitoring Report and submit it to PV Water within 60 days after completion of the monitoring program or of treatment for significant discoveries should treatment extend beyond the cessation of monitoring. The final Archaeological Resources Monitoring Report shall be submitted to PV Water within 30 days of receipt of PV Water comments. The qualified archaeologist shall also submit the final Archaeological Resources Monitoring Report to the Northwest Information Center. If human remains are encountered, a confidential report documenting all activities shall be submitted to the California Native American Heritage Commission within 90 days after completion of any treatment (refer to Mitigation Measure CUL-2). • *Curation Requirements.* Disposition of Native American archaeological materials shall be determined through consultation between Native American representatives, the qualified archaeologist, and PV Water. Disposition of human remains and associated funerary objects shall be determined through consultation between the Most Likely Descendant, landowner, and PV Water (refer to Mitigation Measure CUL-2). Any historic-period archaeological materials that are not Native American in origin shall be curated at a repository accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then it may be curated at a non-accredited repository as long as it meets the minimum standards set forth by 36 CFR 79.9. If neither an accredited nor a non-accredited repository accepts the collection, then it may be offered to a public, non-profit institution with a research interest in the materials, or donated to a local school or historical society in the area for educational purposes, to be determined by the qualified archaeologist in consultation with PV Water. • *Protocols for Native American Monitoring and Input.* The CRMMP shall outline the role and responsibilities of Native American Tribal representatives. It shall include communication protocols, an opportunity and timelines for review of cultural resources documents related to discoveries that are Native American in origin, and provisions for Native American monitoring. The CRMMP shall include provisions for full-time Native American monitoring of ground disturbance in the purple and green shaded areas shown on Figure 3.10-1 of the College Lake Integrated Resources Management Project EIR within agricultural fields (i.e., not within paved roadway right-of-ways), as well as during any subsurface investigation and data recovery for discovered resources that are Native American in origin (refer to Mitigation Measures CUL-1g).				
CUL-1d: Construction Worker Cultural Resources Sensitivity Training Program A worker cultural resources sensitivity training program shall be implemented for the Project. Prior to any ground-disturbing activity, an initial sensitivity training session shall be provided by the qualified archaeologist to all project employees, contractors, subcontractors, and other professionals prior to their involvement in any ground-disturbing activities, with subsequent training sessions occurring on a monthly basis to accommodate new personnel becoming involved in the Project (subsequent sessions can be coordinated with other Worker Environmental Awareness Program or safety training that may be required). Construction personnel shall be informed of the sensitivity of the Project area and given a tutorial providing information on how to identify the types of resources that may be encountered. They shall be instructed on the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, confidentiality of discoveries, and safety precautions to be taken when working with cultural resources monitors. PV Water shall make it a requirement that construction personnel are made available for and attend training sessions and retain documentation demonstrating attendance.	W WTP CLP	2. Pre-Construction	PV Water and qualified archaeologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Cultural Resources (cont.)				
CUL-1e: Designation of Environmentally Sensitive Areas Prior to the start of ground disturbance, the portion of the boundary of CA-SCR-44/H nearest Project-related activities shall be marked as an Environmentally Sensitive Area. This area shall not be marked as an archaeological resource, but shall be designated as an "exclusion zone" on Project plans and protective fencing in order to discourage unauthorized disturbance or collection of artifacts. The qualified archaeologist, or his/her designee, shall periodically inspect this area for the duration of Project activities in the vicinity to ensure that protective fencing remains intact and no incursions into the exclusion zone have occurred. Upon completion of all Project-related activities in the vicinity, all protective fencing and signage shall be removed.	W	2. Pre-Construction 3. Construction	PV Water and qualified archaeologist	
CUL-1f: Archaeological Monitoring Project-related ground disturbance shall be subject to archaeological monitoring as outlined in Mitigation Measure CUL-1c. The archaeological monitor(s) shall be familiar with the types of resources that could be encountered and shall work under the direct supervision of the qualified archaeologist. The archaeological monitor(s) shall keep daily logs detailing the types of activities and soils observed, and any discoveries. Archaeological monitor(s) shall have the authority to halt and re-direct ground disturbing activities in the event of a discovery until it has been assessed for significance and treatment implemented, if necessary, based on the recommendations of the qualified archaeologist in coordination with PV Water, and the Native American representatives in the event the resource is Native American in origin, and in accordance with the protocols and procedures outlined in the CRMMP (refer to Mitigation Measure CUL-1c). The qualified archaeologist shall have the authority to modify monitoring frequencies based on soil observations and/or discoveries.	W WTP CLP	2. Pre-Construction 3. Construction	PV Water and qualified archaeologist	
CUL-1g: Native American Monitoring Prior to the start of any ground-disturbing activity, PV Water shall retain a qualified Native American monitor to provide monitoring services as outlined in Mitigation Measure CUL-1c. The Native American monitor shall be from a Tribe that is culturally and geographically affiliated with the Project area (according to the California Native American Heritage Commission contact list for this project). If resources of Native American origin are discovered, the Native American monitor shall provide monitoring services in accordance with protocols and procedures outlined in the CRMMP (refer to Mitigation Measure CUL-1c).	W WTP CLP	2. Pre-Construction 3. Construction	PV Water	
CUL-1h: Inadvertent Discovery of Archaeological Resources In the event that archaeological resources are encountered during ground disturbance, all activity in the vicinity of the find shall cease (within 100 feet), and the protocols and procedures for discoveries outlined in the CRMMP shall be implemented (refer to Mitigation Measure CUL-1c). The discovery shall be evaluated for potential significance by the qualified archaeologist. If the qualified archaeologist determines that the resource may be significant, the qualified archaeologist shall develop an appropriate treatment plan for the resource in accordance with the CRMMP (refer to Mitigation Measure CUL-1c). When assessing significance and developing treatment for resources that are Native American in origin, the qualified archaeologist and PV Water shall consult with the appropriate Native American representatives. The qualified archaeologist shall also determine if work may proceed in other parts of the Project area while treatment for cultural resources is being carried out, and whether additional archaeological and/or Native American monitoring is warranted.	W WTP CLP	3. Construction	PV Water and qualified archaeologist	

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TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Cultural Resources (cont.)				
CUL-1i: Long-Term Monitoring of CA-SCR-44/H and CA-SCR-150 PV Water shall retain a qualified archaeologist to conduct quarterly inspections of the portions of CA-SCR-44/H and CA-SCR-150 that overlap with the proposed lake storage area to ensure that lake water levels are not resulting in site erosion. If erosion or other indirect impacts are noted, PV Water shall work with the qualified archaeologist to develop a plan to protect the site(s) from further damage, or a plan to conduct data recovery of the affected portion(s) if protective measures are determined by PV Water to be infeasible. Quarterly inspections shall be conducted for two years, after which time they shall be reduced to semi-annual inspections for an additional three years. If after five years no erosion or other indirect impacts are noted, the long-term monitoring program shall be discontinued. After each inspection, the qualified archaeologist shall prepare a memorandum documenting the results of the inspection with photographs. Memoranda shall be submitted to PV Water within 30 days of the completion of each inspection.	CL	4. Post Construction	PV Water and qualified archaeologist	
CUL-2: Inadvertent Discovery of Human Remains If human remains are encountered, then PV Water shall halt work in the vicinity (within 100 feet) of the discovery and contact the County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. If the County Coroner determines the remains are Native American, then the Coroner shall notify the California Native American Heritage Commission in accordance with Health and Safety Code subdivision 7050.5(c), and Public Resources Code Section 5097.98. The California Native American Heritage Commission shall designate a Most Likely Descendant for the remains pursuant to Public Resources Code Section 5097.98. Until the landowner has conferred with the Most Likely Descendant, the contractor shall ensure	W WTP CLP	3. Construction	PV Water and qualified archaeologist	
the immediate vicinity where the discovery occurred is not disturbed by further activity, is adequately protected according to generally accepted cultural or archaeological standards or practices, and that further activities take into account the possibility of multiple burials. If human remains are encountered, the qualified archaeologist, in consultation with the Most Likely Descendant shall prepare a confidential report documenting all activities and it shall be submitted to the California Native American Heritage Commission within 90 days after completion of any treatment.				
Energy, Utilities, and Services				
****ES-1:** A study to identify utilities along proposed alignments will be conducted by PVWMA during pre-design states of projects. The following mitigation measures are required for segments identified in final design as having potential conflicts with significant utilities: a. Utility excavation and encroachment permits would be required from the appropriate agencies, including the Public Works Departments of Santa Cruz County, City of Watsonville, Caltrans, and Union Pacific Railroad. These permits include measures to minimize utility disruption. PVWMA and its contractors shall comply with permit conditions. Permit requirements shall be included in construction contract specifications. b. Utility locations would be verified through field survey (potholing) and use of an underground locating service.	CLP	1. Design 2. Pre-Construction 3. Construction	PV Water, contractor to comply with encroachment permits	

NOTES: CL = College Lake; W = Weir Structure; WTP = Water Treatment Plant; CLP = College Lake Pipeline

TABLE C-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Project Component	Mitigation Schedule	Monitoring, Reporting Responsibility	Verification of Compliance by PV Water
Energy, Utilities, and Services (cont.)				
c. A detailed engineering and construction plan shall be prepared as part of the design plans and specifications. This plan shall include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utility services would be notified of PVWMA's construction plans and schedule. Arrangements would be made with these entities regarding protection, relocation, or temporary disconnection of services. d. In areas where the pipeline would parallel wastewater mains, engineering and construction plans shall include trench wall support measures to guard against trench wall failure, and possible resulting loss of structural support for the wastewater main. e. Residents and businesses in the project area shall be notified in writing by the contractor of planned utility service disruption two to four days in advance, in conformance with state and County standards.				
****ES-2:** PVWMA shall include in its construction specifications a requirement for the contractor to provide plans for recovering, reusing, and recycling construction, demolition, and excavation wastes and providing for composting of plant material, where feasible.	W WTP CLP	1. Design 2. Pre-Construction 3. Construction	Contractor to implement, PV Water to monitor	
Aesthetic Resources				
AES-1a: Aboveground Facility Treatment PV Water shall paint or otherwise treat aboveground facilities using low-glare paint that blends with predominant color(s) of the surrounding terrain, unless colors otherwise specified by regulatory agencies. Concrete structures need not be painted.	W WTP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
AES-1b: Landscaping For the preferred WTP site, PV Water shall shift the site plan northward in order to preserve orchard trees along Holohan Road and several orchard trees northeast of 116 Holohan Road, to the extent feasible and in accordance with PV Water security requirements. Where preservation of orchard trees along Holohan Road is not feasible (e.g., due to the access road and the College Lake pipeline), PV Water shall use landscaping to reduce textural contrasts and enhance visual integration of the WTP with its surroundings. Landscaping shall include shrubs and other vegetation typical of the surrounding area. For the optional WTP site, PV Water shall use landscaping to reduce textural contrasts and enhance visual integration of the WTP with its surroundings when viewed from SR 152. Landscaping shall include shrubs and other vegetation typical of the surrounding area.	WTP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	
AES-2: Construction Lighting PV Water shall require contractors to direct nighttime lighting used during construction away from residential areas, use the minimum amount of night lighting necessary for construction and safety, and shield and hood outdoor lighting to prevent light spillover effects during Project construction.	W WTP CLP	1. Design 3. Construction	Contractor to implement, PV Water to monitor	

NOTES:
* x = Verification of monitoring and reporting has been completed by PV Water
** Mitigation measure adopted in the 2014 BMP Update PEIR and not revised in the College Lake EIR.

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