CALENDAR ITEM
C31

A 10 06/28/16
PRC 7220.1
S 2 A. Franzoia

AMENDMENT OF LEASE AND REVISION OF RENT

LESSEE:
City of Novato

PROPOSED LEASE AMENDMENT:

AREA, LAND TYPE, AND LOCATION:
Sovereign land in Novato Creek, city of Novato, Marin County.

AUTHORIZED USE:
Continued use and maintenance of an existing bridge, utilities, and drainage facilities crossing Novato Creek.

LEASE TERM:
49 years, beginning February 28, 1991.

PROPOSED AMENDMENT:
Installation of a 16-inch-diameter recycled water pipeline attached to the Rowland Way Bridge. All other terms and conditions of the lease shall remain in effect without amendment.

CONSIDERATION:
This lease provides that Lessor may modify the rent periodically during the lease term. Pursuant to this provision, staff has conducted a review of the rent under this lease, and recommends rent be revised from $330 to $450 per year, effective February 28, 2017.

STAFF ANALYSIS AND RECOMMENDATION:
Authority:
Public Resources Code sections 6005, 6216, and 6301; California Code of Regulations, Title 2, section 2000, subdivision (b).

Public Trust and State's Best Interests Analysis:

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide public trust purposes that include, but are not limited to, waterborne commerce, navigation, fisheries, water-related recreation, visitor-serving amenities, habitat preservation, and open space. The Commission is the trustee of the State's sovereign land at Novato Creek at this location.

The 16-inch-diameter recycled water pipeline would be suspended from an existing bridge across Novato Creek. According to the environmental documentation, the pipeline would be installed in the structural supports underneath or on the sides of the Rowland Way Bridge with construction expected to last about three weeks. No work would occur within the riparian corridor or stream banks, and no excavation would be required. As a result, there would be negligible impacts to public trust resources and values.

Commission staff believes that the use does not substantially interfere with the public trust needs and values at this time at this location because the existing bridge, utility service lines, and proposed recycled water pipeline on the bridge would have a negligible, if any, impact on recreational use of Novato Creek.

For all the reasons above, Commission staff believes the issuance of this lease is consistent with the common law Public Trust Doctrine and in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. Applicant has the right to use the upland adjoining the lease premises.

2. On March 6, 1991, the Commission authorized the acceptance of a quitclaim deed from David Kenyon et al., the termination of a General Lease – Right-of-Way Use, and the issuance of a General Lease – Public Agency Use to the City of Novato for construction and maintenance of a bridge with utilities crossing over Novato Creek. The lease will expire on February 27, 2040.

3. Construction of the bridge, which was completed before 1995, provides public access to a business park and includes two, 2-inch-diameter cable

conduits; eight, 4-inch-diameter telecommunication conduits; one, 14-inch-diameter water pipeline; one, 18-inch-diameter natural gas pipeline; and two, 6-inch-diameter electrical conduits.

4. The City of Novato has now applied to amend the lease for the installation of a 16-inch-diameter recycled water line attached to the Rowland Way Bridge as part of a regional effort to expand the beneficial use of recycled water in the North Bay Region to promote the conservation of limited surface water and groundwater resources.

5. This action is consistent with Strategy 1.1 of the Commission's Strategic Plan to deliver the highest levels of public health and safety in the protection, preservation, and responsible economic use of the lands and resources under the Commission's jurisdiction.

6. The Sonoma County Water Agency (SCWA), acting as lead agency under the California Environmental Quality Act (CEQA), prepared an Environmental Impact Report/Statement (EIR) and Mitigation Monitoring Program (MMP) (State Clearinghouse No. 2008072096) for the North Bay Water Recycling Program (NBWRP) Recycled Water System Expansion Project (Project). The SCWA certified the EIR and approved the Project on December 15, 2009. The North Marin Water District (District), as a responsible agency, also approved the Project on December 15, 2009. On September 15, 2015, the District approved an Addendum to the EIR to address changes to the Project and approved the modified Project. Commission staff has reviewed such documents and the MMP prepared pursuant to the provisions of CEQA (Pub. Resources Code, § 21081.6).

   Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15091, 15096) and a Statement of Overriding Considerations made pursuant to the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15093) are contained in Exhibit D, attached hereto.

7. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.

EXHIBITS:

A. Land Description
B. Site and Location Map
C. Mitigation Monitoring Program
D. Findings and Statement of Overriding Considerations

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that the SCWA prepared an EIR (State Clearinghouse No. 2008072096) and MMP for the Project and approved the Project on December 15, 2009, that the North Marin Water District, as a responsible agency, also approved the Project on December 15, 2009, then approved an Addendum to the EIR on September 15, 2015, and approved changes to the Project, and that the Commission has reviewed and considered the information contained therein.

Adopt the Mitigation Monitoring Program, as contained in Exhibit C, attached hereto.

Adopt the Findings, made in conformance with California Code of Regulations, Title 14, sections 15091 and 15096, subdivision (h), and the Statement of Overriding Considerations made in conformance with California Code of Regulations, Title 14, section 15093, as contained in Exhibit D, attached hereto.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that the proposed Amendment of Lease to authorize installation of a 16-inch-diameter recycled water line on the Rowland Way Bridge across Novato Creek will not substantially interfere with the public trust needs and values at this location at this time, is consistent with the common law Public Trust Doctrine, and is in the best interests of the State.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

1. Authorize the amendment of Lease No. PRC 7220.1, a General Lease – Public Agency Use, to install a 16-inch-diameter recycled water pipeline on the Rowland Way Bridge over sovereign land

located in Novato Creek, in the city of Novato, Marin County as described in Exhibit A and shown on Exhibit B (for reference purposes only) attached and by this reference made a part hereof, effective June 28, 2016, to the City of Novato; all other terms and conditions of the lease will remain in effect without amendment.

2. Approve the revision of rent for Lease No. PRC 7220.1 from $330 per year to $450 per year, effective February 28, 2017.

EXHIBIT A

PRC 7220.1

LAND DESCRIPTION

A parcel of land in Novato, Marin County, California, said parcel being a portion of the area described in the deed to the State of California by Ronald and Pamela Antonioli on June 29, 1984, Recorded July 3, 1984, Recorders Serial Number 84 032105 Marin County Records, said parcel being described as follows:

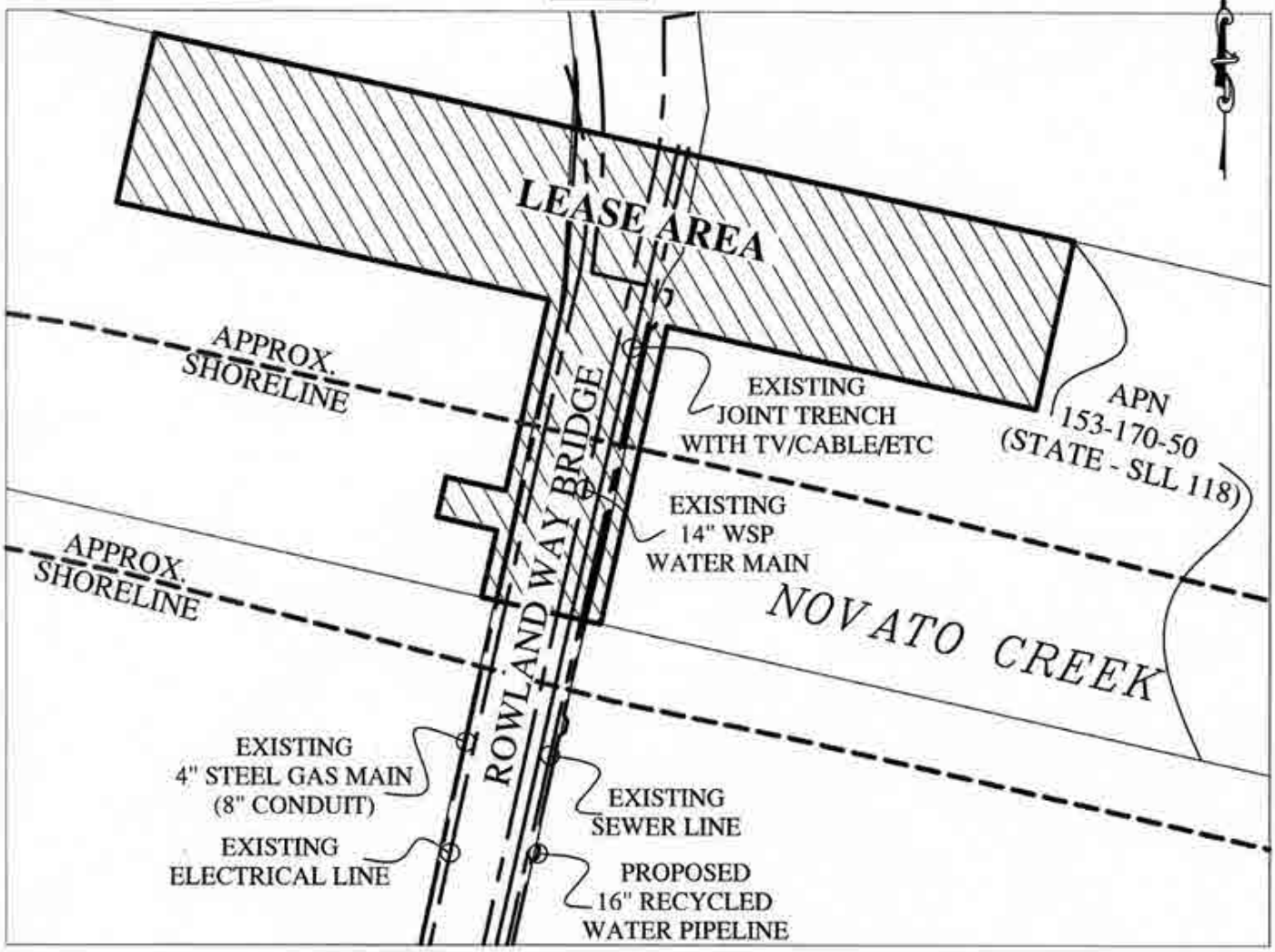
BEGINNING at a point on the northerly line of said area S 77°23'00" E 441.89 feet from the northwest corner of said area; thence along said northerly line S 77°23'00" E 462.00 feet; thence leaving said northerly line S 12°37'00" W 85.00 feet; thence N 77°23'00" W 185.00 feet; thence S 12°37'00" W 150.00 feet to the southerly line of said area; thence along said southerly line N 77°23'00" W 60.00 feet; thence leaving said southerly line N 12°37'00" E 33.70 feet; thence N 77°23'00" W 30.00 feet; thence N 12°37'00" E 20.00 feet; thence N 77°23'00" W 30.00 feet; thence N 12°37'00" E 96.30 feet; thence N 77°23'00" W 217.00 feet; thence N 12°37'00" E 85.00 feet to the POINT OF BEGINNING.

END OF DESCRIPTION

REVISED 4/27/15 BY THE CALIFORNIA STATE LANDS COMMISSION BOUNDARY UNIT REMOVING PARCELS 2 & 3 OF THE LAND DESCRIPTION FOUND IN SECTION 3 OF LEASE FILE PRC 7220, REVISED OCTOBER 3, 1990 BY LLB & AUTHORIZED BY THE COMMISSION ON 3/06/1991

NO SCALE

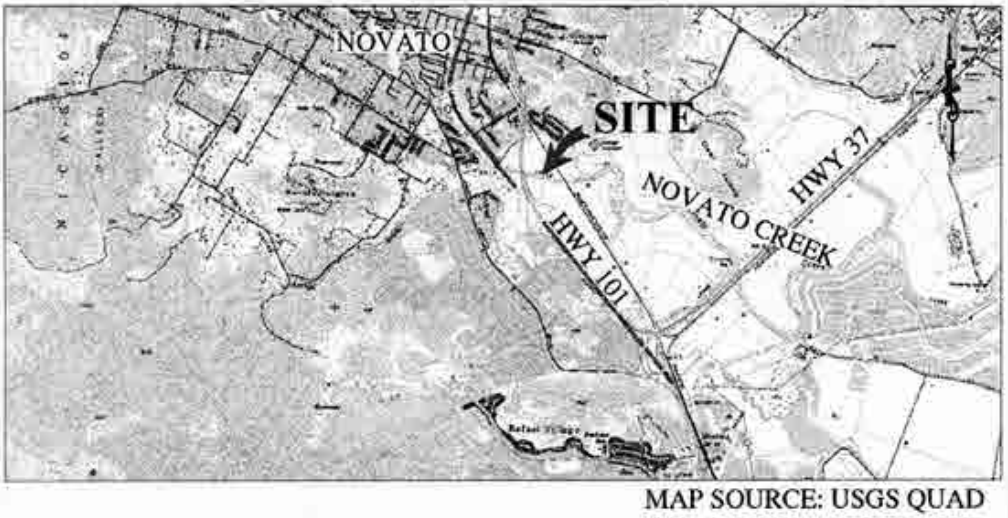
SITE



Novato Creek, Rowland Way, Novato

NO SCALE

LOCATION



MAP SOURCE: USGS QUAD

This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

Exhibit B

PRC 7220.1
CITY OF NOVATO
GENERAL LEASE - PUBLIC AGENCY USE
MARIN COUNTY

MJF 04/27/16

EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM

NORTH BAY WATER RECYCLING PROGRAM
(PRC 7220, State Clearinghouse No. 2008072096)

The California State Lands Commission (Commission) is a responsible agency under the California Environmental Quality Act (CEQA) for the North Bay Water Recycling Program (NBWRP) Recycled Water System Expansion Project (Project). The CEQA lead agency for the NBWRP is the Sonoma County Water Agency and the responsible agency for the Project is the North Marin Water District.

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on Commission lands. The purpose of a MMP is to discuss feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration (MND). State CEQA Guidelines section 15097, subdivision (a), states in part:[1]

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

The Sonoma County Water Agency has prepared a Program EIR/Environmental Impact Statement, certified the Program EIR, and adopted a MMP for the whole of the Program (see Exhibit C, Attachment C-1). As responsible agency, the North Marin Water District has approved the Project (the portion of the Program within the District's service area that was analyzed within the Program EIR/EIS) and adopted the MMP contained in the Program EIR and remains responsible for ensuring that implementation of the mitigation measures within its service area occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below.

[1] The State CEQA Guidelines are found at California Code of Regulations, Title 14, section 15000 et seq.

Table C-1. Project Impacts and Applicable Mitigation Measures.

Potential Impact	Mitigation Measure (MM)[2]
Impact 3.1.1: Seismicity	MM 3.1.1
Impact 3.2.4: Flooding – Sea Level Rise	MM 3.2.4
Impact 3.5.9: Impacts on Nesting Birds	MM 3.5.9
Impact 3.8.1: Temporary Construction Emissions of Criteria Pollutants	MMs 3.8-1a & b
Impact 3.9.1: Temporary Construction Noise	MM 3.9.1
Impact 3.9.2: Temporary Vibration Impacts	MM 3.9.2
Impact 4.1. Construction-related Cumulative Impacts	MM 4.1
Impact 5.1. Direct and Indirect Impacts on Growth	MM 5.1a

[2] See Attachment C-1 for the full text of each MM taken from the MMP prepared by the CEQA lead agency.

ATTACHMENT C-1

Mitigation Monitoring Program Adopted by the

North Marin Water District

Attachment A: Mitigation Monitoring and Reporting Program

This attachment summarizes the mitigation measures that would be integrated into the proposed project (*i.e.*, North Bay Water Recycling Program or NBWRP) to reduce the potentially significant impacts to a less-than-significant level. Also provided is a Mitigation Monitoring and Reporting Program (MMRP) organized in a tabular format, keyed to each mitigation measure incorporated into the project. The tables following each measure provide a breakdown of how the mitigation measure would be implemented, who would be responsible, and when it would occur. The tables consist of four column headings which are defined as follows:

- *Implementation Procedure*: If needed, this column provides additional information on how the mitigation measures would be implemented.
- *Monitoring and Reporting Actions*: This column contains an outline of the appropriate steps to verify compliance with the mitigation measure.
- *Monitoring Responsibility*: This column contains an assignment of responsibility for the monitoring and reporting tasks.
- *Monitoring Schedule*: This column provides a general schedule for conducting each monitoring and reporting task, identifying where appropriate both the timing and the frequency of the action.
- *Responsible Agency*: This column states the agency, which would be responsible for implementing the mitigation measure. If the measure applies to all the Member Agencies, the responsible agency noted is "Member Agency". If the measure applies to specific agencies, the name of the agency or agencies is/are noted in the column.

Geology and Soils

Impact 3.1.1: Seismicity

In the event of a major earthquake in the Bay Area Region, the proposed facilities could be subject to fault rupture, severe ground shaking, liquefaction, or earthquake induced landslides capable of causing injury, structural damage, pipeline rupture and service interruption.

Mitigation Measure 3.1.1

The Member Agencies will implement the following measures:

- All proposed improvements will be designed and constructed in accordance with current geotechnical industry standard criteria, including the California Building Code (CBC) and American Waterworks Association (AWWA) criteria.

- The project construction materials and backfill materials will be designed according to a geotechnical investigation by a California-licensed geotechnical engineer or engineering geologist to address landslide, subsidence, liquefaction, and expansive soils and seismic hazards such as ground shaking and liquefaction.

- Implementation of industry standard geotechnical measures such as replacing excavated soils with engineered fill materials are effective means to overcome the potential for subsidence. If excavated soils are to be reused for backfill, they would still be appropriately compacted to mitigate the potential for subsidence or settlement and evaluated for expansion and amended, if necessary, to reduce the potential for expansion in accordance with accepted geotechnical practices.

- Proposed facilities will be designed to include flexible connections, where deemed necessary, along with backfill requirements that minimize the potential for significant damage. All other associated improvements will employ standard design and construction using the most recent geotechnical practices and California Building Code (CBC) seismic criteria, which would provide conservative design criteria.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Design improvements with current geotechnical industry standard criteria. 2. Conduct geotechnical investigation and design construction and backfill material accordingly. 3. Replace excavated soils with engineered fill or properly compacted excavated soils if reused. After placing backfill, evaluate soil's potential for expansion. 4. Design facilities fo include flexible connections.	1. Incorporate design improvements into construction specifications; Comply with CBC and AWWA. 2. Incorporate design recommendations info construction specifications. 3. Incorporate procodure into construction specifications. 4. Incorporate flexible connections into construction specifications.	1. Member Agency 2. Contractor/ Member Agency 3. Contractor/ Member Agency 4. Member Agency	1. Prior to Construction 2. Prior to Construction 3. During Construction 4. Prior to Construction	Member Agency

Impact 3.1.2: Erosion

Project construction activities could result in short-term erosion and loss of topsoils.

Mitigation Measure 3.1.2

The Member Agencies will implement the following measures:

- Consistent with Stormwater Pollution Prevention Plan (SWPPP) requirements, the construction contractor shall be required to implement BMPs for erosion control onsite. The

use of construction BMPs will minimize the potential for erosion and loss of topsoil, and shall include, without limitation, the following:

- Avoid scheduling construction activities during a rain event, but be prepared for sudden changes in conditions;
- Construct berms, silt fences, straw bales, fiber rolls, and/or sand bags around stockpiled soils;
- Cover stockpiled soils during a rain event and monitor perimeter barriers, repair as necessary;
- Stabilize entrances to work area to prevent tracking of dirt or mud onto roadways; and
- Implement dust control practices as appropriate on all stockpiled material.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Prepare a SWPPP. 2. Schedule construction to avoid rainy season. 3. Construct berms and install silt fences, straw bales, fiber rolls, and/or sand bags around stockpiled soils. 4. Cover stockpiled soils during a rain event and monitor perimeter barriers; repair as necessary. 5. Stabilize entrances to work area to prevent tracking of dirt or mud onto roadways. 6. Implement dust control practices as appropriate on all stockpiled material.	1. Incorporate erosion control BMPs into construction specifications. 2. Incorporate schedule into construction specifications. 3. Incorporate use of these measures into construction specifications. 4. Incorporate use of these measures into construction specifications. 5. Incorporate use of these measures into construction specifications. 6. Incorporate use of these measures into construction specifications.	1. Member Agency 2. Member Agency 3. Contractor/ Member Agency 4. Contractor/ Member Agency 5. Contractor/ Member Agency 6. Contractor/ Member Agency	1. Prior to Construction 2. Prior to and During Construction 3. During Construction 4. During Construction 5. During Construction 6. During Construction	Member Agency

Impact 3.1.3: Unstable Soils

Project improvements could be located on expansive soils that over time could cause damage to foundations and pipelines resulting in service disruptions.

Mitigation Measure

The Member Agencies will implement the Mitigation Measure 3.1.1.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.1.1	1. Incorporate use of these measures into construction specifications.	1. Contractor/ Member Agency	1. Prior to and During Construction	Member Agency

Impact 3.1.4: Expansive Soils

Project improvements could be located on expansive soils that over time could cause damage to foundations and pipelines resulting in service disruptions.

Mitigation Measure

The Member Agencies will implement the Mitigation Measure 3.1.1.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.1.1	1. Incorporate use of these measures into construction specifications.	1. Contractor/ Member Agency	1. Prior to and During Construction	Member Agency

Surface Hydrology

Impact 3.2.1: Changes in Drainage Patterns

Project construction could modify existing drainage patterns.

Mitigation Measure 3.2.1

The Member Agencies would implement the following measure during pipeline installation at stream crossings:

- Schedule construction so as to avoid storm events to the extent feasible;
- Use trenchless techniques such as jack and bore tunneling to avoid direct impacts to the streams;
- Employ short-term drainage diversion and control measures such as sandbags, dikes, pumps, or other means; and
- Following construction, restore the construction area to pre-existing conditions
- Implement **Mitigation Measure 3.5.1** (see Section 3.5).

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Schedule construction to avoid rainy season. 2. Integrate trenchless techniques such as jack and bore to avoid streams. 3. Employ short-term drainage diversion and control measures such as sandbags, dikes, pumps, or other means. 4. Restore site to pre-existing conditions.	1. Incorporate schedule into construction specifications. 2. Incorporate use of trenchless techniques into construction specifications. 3. Incorporate use of these measures into construction specifications. 4. Inspect final site conditions after construction and verify its condition is it equivalent to that prior to construction. Incorporated into construction specifications.	1. Member Agency 2. Contractor/ Member Agency 3. Contractor/ Member Agency 4. Contractor/ Member Agency	1. Prior to and During Construction 2. Prior to Construction 3. During Construction 4. After Construction	Member Agency

Impact 3.2.3: Increased Storm Runoff

New impervious surfaces for NBWRP would result in an increase in storm runoff.

Mitigation Measure 3.2.3

The Member Agencies will implement the following measures:

- Comply with the local storm drainage requirements;
- Incorporate site design features to control any site runoff onsite; and
- Install storm runoff, collection, and treatment system, as applicable, to control the runoff flow offsite.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Comply with the local storm drainage requirements. 2. Incorporate site design features to control any site runoff onsite.	1. Incorporate requirements into construction specifications. 2. Incorporate features into construction specifications.	1. Member Agency 2. Member Agency 3. Contractor/ Member Agency	1. Prior to Construction 2. Prior to Construction 3. During and After Construction	Member Agency

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
3. Install storm runoff, collection, and treatment system, as applicable, to control the runoff flow offsite.	3. Monitor efficacy of system and regularly maintain it.			

Impact 3.2.4: Flooding – Sea Level Rise

Sea-level rise could affect operation of project facilities.

Mitigation Measure 3.2.4

Design of proposed facilities shall consider sea level rise potential, and shall include appropriate measures in facility siting and design to address potential impacts related to sea level rise, similar to those applied to facility installation within 100-year flood plains. Design measures may include, but are not limited to: facility siting, access placement, access vault extension above projected water elevation, water tight vaults, and site protection.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Design facility to address potential impacts related to sea level rise. Design measures may include but are not limited to: facility siting, access placement, access vault extension above projected water elevation, water tight vaults, and site protection.	1. Incorporate design requirements into construction specifications.	1. Member Agency	1. Prior to construction	LGVSD/NMWD, Novato SD/ NMWD, SVCSD

Groundwater Resources

Impact 3.3.2: Hydrostatic Pressure

Proposed facilities may be affected by shallow groundwater levels and natural groundwater fluctuations.

Mitigation Measure 3.3.1

The Member Agencies will implement the following measures:

- All proposed improvements will be designed and constructed in accordance with current geotechnical industry standard criteria.

- Implement industry standard geotechnical measures to address high groundwater conditions as appropriate to reduce the potential for impacts related to groundwater fluctuation, in accordance with accepted geotechnical practices. Possible design features include drainage blankets, perimeter pumps to temporarily decrease hydrostatic pressure, perimeter drainage trenches, and specific groundwater monitoring scenarios.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Design improvements with current geotechnical industry standard criteria. 2. Design improvements to address high groundwater conditions in accordance with accepted geotechnical practices. Possible design features include but are not limited to: drainage blankets, perimeter pumps to temporarily decrease hydrostatic pressure, perimeter drainage trenches, and specific groundwater monitoring scenarios.	1. Incorporate design requirements into construction specifications. 2. Incorporate design requirements into construction specifications.	1. Member Agency 2. Member Agency	1. Prior to construction 2. Prior to construction	Member Agency

Water Quality

Impact 3.4.1: Short Term Construction-Related Effects

Disturbance of soils during construction of new project-related infrastructure could generate short term erosion-related water quality impacts. Construction activities could result in the accidental release of fuels or hazardous materials. Project construction activities could require dewatering that could result in the discharge of turbid waters into the local storm drain systems or nearby creeks.

Mitigation Measure 3.4.1a

NPDES Construction Activity Stormwater Permit. Member Agencies or their contractor shall comply with the provisions of the NPDES Construction Activity Stormwater permit, including preparation of Notice of Intent to comply with the provisions of this General Permit and preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will identify implementation measures necessary to mitigate potential water quality degradation as a result of

construction-related runoff. These measures will include BMPs and other standard pollution prevention actions, such as erosion and sediment control measures, proper control of non-stormwater discharges, and hazardous spill prevention and response. The SWPPP will also include requirements for BMP inspections, monitoring, and maintenance.

The following items are examples of BMPs that would be implemented during construction to avoid causing water quality degradation:

- Erosion control BMPs, such as use of mulches or hydroseeding to prevent detachment of soil, following guidance presented in the California BMP Handbooks – Construction (CASQA 2003). A detailed site map will be included in the SWPPP outlining specific areas where soil disturbance may occur, and drainage patterns associated with excavation and grading activities. In addition, the SWPPP will provide plans and details for the BMPs to be implemented prior, during, and after construction to prevent erosion of exposed soils and to treat sediments before they are transported offsite.
- Sediment control BMPs such as silt fencing or detention basins that trap soil particles.
- Construction staging areas designed so that stormwater runoff during construction will be collected and treated in a detention basin or other appropriate structure.
- Management of hazardous materials and wastes to prevent spills.
- Groundwater treatment BMPs such that localized trench dewatering does not impact surface water quality.
- Vehicle and equipment fueling BMPs such that these activities occur only in designated staging areas with appropriate spill controls.
- Maintenance checks of equipment and vehicles to prevent spills or leaks of liquids of any kind.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Submit Notice of Intent and SWPPP for the NPDES General Construction Permit 2. Incorporate BMPs in standard construction procedures	1. Comply with the SWPPP and NPDES permit requirements 2. Implement BMPs	1. Contractor 2. Contractor/ Member Agency	1. Prior to construction 2. During and following construction	Member Agency

Impact 3.4.6: Surface Water Storage

The proposed project would include storage of recycled water at existing WWTP facilities, as well as at individual user properties. Storage of recycled water quality would have the potential to affect localized surface water quality or groundwater quality.

Mitigation Measure 3.4.6a

Under the Master Recycling Permit for each Member Agency and Cooperating Agency, user agreements shall include provisions for compliance with Title 22 and the State Recycled Water Policy regarding storage and use of recycled water onsite at individual properties.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Incorporate provisions for compliance with Title 22 and State Recycled Water Policy in user agreements. 2. Comply with provisions in the user agreement	1. Execute agreement 2. Execute agreement	1. Member Agency/Users 2. Member Agency/Users	1. During project operation (recycled water use) 2. During project operation (recycled water use)	Member Agency

Mitigation Measure 3.4.6b

Prior to storage of recycled water in any "on-stream" storage facility that directly receives and releases stream flow, each Member Agency or Cooperating Agency shall enter into discussions with RWQCB regarding operational requirements to ensure operation of proposed facilities in compliance with Title 22 and the State Recycled Water Policy. It is anticipated that specific operational standards, such as pumping on-stream ponds dry prior to the onset of winter rains or other measures, would be required in order to ensure storage in compliance with Title 22.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Enter into discussions with San Francisco Bay RWQCB regarding operational requirements for the proposed facilities. 2. Comply with requirements	1. Incorporate requirements into standard operational procedures. 2. Incorporate requirements into standard operational procedures.	1. Member Agency 2. Member Agency	1. Project operation/ prior to storage of recycled water 2. Project operation	Member Agency

Impact 3.4.9: Reuse for Habitat Restoration

Disinfected tertiary-treated wastewater from the SVCSD WWTP would be delivered to the Napa Salt Marsh ponds as a dilution source for bittern ponds, thereby improving water quality.

Mitigation Measure 3.4.9a

SVCSD and Napa SD (as appropriate) shall implement the following measures:

- Prepare a Management Plan required by the San Francisco Bay RWQCB to obtain a discharge prohibition. The management plan will comply with the RWQCB Resolution 94-086. The management plan will include the following features for Ponds 7 and 7A:

  a) Facility Plan, includes project purpose and objectives, site selection factors, site sampling and analyses, planning and design elements.

  b) Operations and Maintenance plan, includes vegetation planning and harvesting, channel and bank maintenance, pump and gate maintenance, vector controls, and contingency/emergency plans; and

  c) Monitoring Program, includes monitoring of pollutants, habitat diversity, wildlife use, and vector populations.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Prepare Management Plan in compliance with RWQCB's requirements. 2. Implement the Management Plan	1a. Incorporate requirements in the Management Plan 1b. Incorporate Facility Plan, Operations and Maintenance plan, and monitoring program in the Management Plan. 2. Report results as required	1a. SVCSD/ Napa SD 1b. SVCSD/Napa SD 2. SVCSD/ Napa SD	1a. Prior to operation 1b. Prior to operation 2. During operation	SVCSD and Napa SD

Biological Resources

Impact 3.5.1: Impacts on Wetlands, Streams and Riparian Habitats

Construction of the Proposed Project could result in impacts to jurisdictional wetlands and other waters of the United States, as well as impacts to riparian habitat.

Mitigation Measure 3.5.1

Implement the following measures to avoid, minimize and compensate for impacts to jurisdictional wetlands and other waters of the U.S. and impacts to riparian habitat.

Construction activities resulting in the introduction of fill or other disturbance to jurisdictional wetlands and other waters of the U.S. will require permit approval from the U.S. Army Corps of Engineers and water quality certification from the Regional Water Quality Control Board, pursuant to Section 401 of the Clean Water Act. The Proposed Project will most likely be authorized under Nationwide Permit #12 (Utility Lines) pursuant to Section 404 of the Clean Water Act. The California Department of Fish and Game (CDFG) has jurisdiction in the project

area over riparian habitat, including stream bed and banks, pursuant to Sections 1600-1616 of the Fish and Game Code. Pipeline construction resulting in alteration to channel bed or banks, extending to the outer dripline of trees forming the riparian corridor, is subject to CDFG jurisdiction. The project proponent will be required to obtain a Streambed Alteration Agreement (SAA) from the CDFG. Terms of these permits and SAA will likely include, but will not necessarily be limited to, the mitigation measures listed below.

1) Specific locations of pipeline segments, storage reservoirs, and pump stations shall be configured, wherever feasible, to avoid and minimize direct and indirect impacts to wetlands and stream drainage channels. Consideration taken in finalizing configuration placement shall include:

   - Reducing number and area of stream channel and wetland crossings where feasible. Crossings shall be oriented as close to perpendicular (90 degree angle) to the drainage or wetland as feasible.

   - Placement of project components as distant as feasible from channels and wetlands.

   - For pipeline construction activities in the vicinity of wetland and stream drainage areas, the construction work area boundaries shall have a minimum 20-foot setback from jurisdictional features[1]. Pipeline construction activities in proximity to jurisdictional features include: 1) entrance and exit pits for directional drilling and bore and jack operations; and 2) portions of pipeline segments listed as "parallel" to wetland/water features.

2) Sites identified as potential staging areas will be examined by a qualified biologist prior to construction. If potentially jurisdictional features are found that could be impacted by staging activities, the site will not be used.

3) Construction methods for channel crossing shall be designed to avoid and minimize direct and indirect impacts to channels to the greatest extent feasible. Use of trenchless methods including suspension of pipeline from existing bridges, directional drilling, and bore and jack tunneling will be used when feasible. Trenchless methods are required for all perennial drainage crossings (i.e., Sonoma Creek). Construction occurring in the vicinity of riparian areas shall be delimited with a minimum 20-foot setback to avoid intrusion of construction activities into sensitive habitat.

   The following additional measures shall apply to channel crossings in which the trenching construction method is used:

   - Limiting of construction activities in drainage channel crossings to low-flow periods: approximately April 15 to October 15.

   - At in-road drainage crossings where drainages pass beneath the road in existing culverts, and where there is sufficient cover between the culvert and road surface, the new pipeline will be installed above the existing culvert without removing or disturbing it. If the pipeline must be installed below the existing culvert, then the culvert will be cut and temporarily removed to allow pipeline installation.

[1] Setbacks of channels with associated riparian vegetation will be from the outer dripline edge of the riparian corridor canopies and/or the upper bank edge, or per City or County code, whichever is greater.

- At off-road drainage crossings, the construction corridor width will be minimized to the greatest extent feasible at the crossing and at least 20 additional feet to either side of the drainage at the crossing.
- If disturbance of the existing culvert is required, sediment curtains upstream and downstream of the construction zone shall be placed to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone.

4) Implement BMPs required in **Mitigation Measure 3.4.1** to reduce risk of sediment transport into all construction areas in proximity of drainages.

5) For channels or wetlands for which soil removal is necessary (off-road crossings or wetlands to be trenched or otherwise directly disturbed), the top layer of the drainage or wetland bottom shall be stockpiled and preserved during construction. After the pipeline has been installed, the stockpiled material shall be placed back into the drainage or wetland feature to return the beds to approximately their original composition.

6) To offset temporary and permanent impacts to wetlands and other waters of the U.S., and impacts to riparian habitat, compensatory mitigation will be provided as required by regulatory permits and SAAs.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Acquire permits from USACE, CDFG, and RWQCB. 2. Implement Best Management Practices (BMPs). 3. Stockpile excavated soil. 4. Implement compensatory mitigation.	1. Comply with regulatory permit. 2. Sign-off on inspection report and/ or MMRP. 3. Sign-off on inspection report and/ or MMRP. 4. Comply with regulatory permits and SAAs.	1. Member Agency 2. Contractor 3. Contractor 4. Member Agency	1. Prior to Construction 2. During Construction 3. During Construction 4. Prior to and During Construction	Member Agency

Impact 3.5.2: Construction Impacts on Special-status Fish and California Freshwater Shrimp

Construction of Proposed Project facilities could affect special-status invertebrate or fish species including central California coast steelhead, Chinook salmon, California freshwater shrimp, Pacific lamprey, and Sacramento splittail, or designated critical habitat for steelhead.

Mitigation Measure 3.5.2

Specific measures shall be implemented to protect aquatic habitats potentially inhabited by special-status fish and California freshwater shrimp.

Sensitive fisheries and other aquatic resources shall be protected by minimizing in-stream and near-stream habitat impacts during project design, informally consulting with resource agencies (NMFS, USFWS, CDFG, and USACOE), and implementing protective measures. For Sonoma Creek, Petaluma River, Napa River, and other perennial drainages, special-status fish are presumed present. California freshwater shrimp are presumed present in Sonoma Creek. Because of the sensitivity of seasonal and ephemeral drainages, the following measures will be required to avoid and minimize impacts to aquatic habitat:

1) Project designs shall be reconfigured, whenever feasible, to avoid direct impacts to sensitive wetland areas and minimize disturbances to wetland and riparian corridors. Ground disturbance and construction footprints in these areas shall be minimized to the greatest degree feasible.

2) If trenching or directional boring stream crossing methods are used, the construction schedule of such activities shall be implemented according to conditions of the SAAs.

3) In-stream construction shall be avoided at all locations that are known, or presumed, to support threatened or endangered species, if at the time of construction such locations contain flowing or standing water.

4) In the event that equipment shall operate in any watercourse with flowing or standing water, the project proponent will ensure that they have the appropriate permit authorizations.

5) Prior to construction, a qualified biologist shall install fencing to establish a minimum 20-foot setback from sensitive habitat.

6) For work sites located adjacent to sensitive aquatic sites, a biological resource education program shall be provided by a qualified biologist, as per conditions of the SAAs.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Consult with resource agencies. 2. Implement recommendations derived during consultation.	1. Design protective measures. 2. Comply with permit conditions; sign-off on inspection report and/or MMRP	1. Member Agency 2. Contractor	1. Prior to Construction 2. During Construction	Member Agency

Impact 3.5.3: Long term Impacts on Special-status Fish

Operation of the proposed project has the potential to affect special-status fish species due to reduced discharges from the WWTPs.

Mitigation Measure 3.5.3

Implementation of **Mitigation Measure 3.5.5** for the protection of California red-legged frogs and **Mitigation 3.5.1** for protection and restoration of wetlands would protect special-

status invertebrates that could potentially be impacted by the project. No specific mitigation is required.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.5.1. 2. Implement Mitigation Measure 3.5.5.	1. Comply with regulatory permit; sign-off on inspection report and/ or MMRP. 2. Comply with permit conditions; sign-off on inspection report and/or MMRP.	1. Member Agency/ Contractor 2. Contractor/ Qualified Biologist	1. Prior to and During Construction 2. Prior to Construction	Member Agency

Impact 3.5.4: Impacts on Special-status Invertebrates

Construction of Proposed Project facilities could impact special-status invertebrates including Myrtle's silverspot butterfly, Opler's longhorn moth, Monarch butterfly wintering sites, Ricksecker's water scavenger beetle and California brackishwater snail.

Mitigation Measure 3.5.3

Mitigation Measure 3.5.3 would reduce potential impacts on special-status invertebrates to a less-than-significant level.

Implementation of **Mitigation Measure 3.5.5** for the protection of California red-legged frogs and **Mitigation 3.5.1** for protection and restoration of wetlands would protect special-status invertebrates that could potentially be impacted by the project. No specific mitigation is required.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.5.3. 2. Implement Mitigation Measure 3.5.1. 3. Implement Mitigation Measure 3.5.5.	1. Comply with regulatory permit; sign-off on inspection report and/ or MMRP. 2. Comply with regulatory permit; sign-off on inspection report and/ or MMRP. 3. Comply with permit conditions; sign-off on inspection report and/or MMRP	1. Member Agency 2. Member Agency/ Contractor 3. Contractor/ Qualified Biologist	1. Prior to and During Construction 2. Prior to and During Construction 3. Prior to and During Construction	Member Agency

Impact 3.5.5: Impacts on Western Pond Turtle

Construction of the proposed project has the potential to impact western pond turtles in upland and aquatic habitat.

Mitigation Measure 3.5.5

Implement protection measures to avoid and minimize impacts to western pond turtles.

- When working within 200 feet of stream crossings, all construction personnel shall receive awareness training relating to the protection of western pond turtles, in accordance with the SAAs. Also, to minimize the likelihood of encountering turtles in upland areas near stream crossings, construction footprints shall be minimized to the greatest extent feasible. Based on reconnaissance-level surveys, if staging and construction activities occur principally within or immediately adjacent to project alignment roads the project will be outside of principal pond turtle habitat.

- Within 48 hours prior to the start of construction activities, a qualified biologist shall perform pond turtle surveys within suitable habitat within projected work areas. If a pond turtle nest is located within a work area, a biologist with the appropriate permits may move the eggs to a suitable facility for incubation, and release hatchlings into the creek system in late fall.

The measures proposed for protection of aquatic species and red-legged frogs (**Mitigation Measure 3.5.2 and Mitigation Measure 3.5.6**) will additionally protect western pond turtles during construction.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Conduct awareness training for construction personnel working within 200 feet of stream crossings. 2. Conduct pond turtle surveys; move eggs if necessary. 3. Implement Mitigation Measure 3.5.2. 4. Implement Mitigation Measure 3.5.6.	1. Comply with SAA permit; sign-off on inspection report and/ or MMRP. 2. Comply with regulatory permits; sign-off on inspection report and/ or MMRP 3. Comply with permit conditions; sign-off on inspection report and/or MMRP 4. Comply with SAA permit conditions; sign-off on inspection report and/or MMRP.	1. Contractor/ Member Agency 2. Qualified Staff Biologist 3. Contractor 4. Contractor/ Qualified Biologist	1. Prior to construction 2. 48 hours Prior to Construction 3. Prior to and During Construction 4. Prior to and During Construction	Member Agency

Impact 3.5.6: Impacts on California Red-legged Frog

Construction of the Proposed Project has the potential to affect California red-legged frogs, if present.

Mitigation Measure 3.5.6

Protection measures to avoid and minimize impacts on California red-legged frogs.

1) The implementation of measures identified for the protection of special-status fish and California freshwater shrimp would also protect California red-legged frogs within aquatic habitat. All protection measures identified in **Mitigation Measure 3.5.2** shall be applied to the protection of red-legged frogs at sites that provide potential aquatic habitat for this species. These include informal USFWS consultation, avoiding aquatic habitat, establishing a suitable buffer from the aquatic habitat (e.g., 50 feet), and implementing a worker education program.

2) All work activities within or adjacent to aquatic habitat that is potentially occupied by red-legged frogs will be completed between May 1 and November 1.

3) A qualified biological resource monitor will conduct a training session for construction personnel working in upland habitat near potentially occupied drainages, as per conditions of the SAAs.

4) All trash that could attract predators will be regularly contained and removed from the work site.

In the event trenchless methods cannot be employed, the project proponent would obtain appropriate permit authorizations and implement construction methods per applicable Streambed Alteration Agreements.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.5.2. 2. Complete all work within or adjacent to aquatic habitat that is inhabited by red-legged frogs between May 1 and November 1 3. Conduct training sessions for construction personnel working in upland habitat near potential occupied drainages. 4. Implement trash removal and trenchless construction methods where necessary.	1. Comply with permit conditions; sign-off on inspection report and/or MMRP. 2. Incorporate into contract specifications. 3. Comply with SAA permit conditions; sign-off on inspection report and/or MMRP. 4. Comply with SAA permit conditions; sign-off on inspection report and/or MMRP.	1. Contractor/ Qualified Biologist 2. Contractor 3. Qualified Biologist/ Construction Personnel 4. Contractor	1. Prior to and During Construction 2. During Construction 3. During Construction 4. During Construction	Member Agency

Impact 3.5.7: Impacts on Threatened and Endangered Marsh Birds

Construction of the proposed project has the potential to affect western snowy plover, California black rail and California clapper rail and their habitat in and near the project alignments.

Mitigation Measure 3.5.7

To minimize the likelihood of project effects on threatened and endangered marsh birds, the following mitigation measures will be implemented:

- Protocol-level surveys will be conducted in locations with suitable habitat to determine species presence or absence.
- Agency consultation will be initiated.
- Construction activities will occur during the non-breeding season, September 15 through January 31. The combined breeding season for all three species extends from February 1 through September 14.
- Construction personnel will receive environmental awareness training specific to the identification of clapper rails, black rails, western snowy plover and their habitat.
- Any clapper rail and western snowy plover activity will be immediately reported to the USFWS; black rail activity will be reported to the CDFG.
- Construction activities will be constrained to the smallest area possible to minimize marsh disturbance.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Conduct protocol-level surveys in areas that contain suitable nesting bird habitat 2. Initiate consultation with resource agency. 3. Adhere to construction schedule with respect to bird breeding season. 4. Conduct training sessions for construction personnel specific to identification of sensitive bird habitat. 5. In the event of presence of sensitive birds, coordinate with CDFG and/ or USFWS.	1. Incorporate survey results and recommendations into project contract specifications. 2. Develop and implement avoidance measures. 3. Incorporate into contract specifications. 4. Incorporate into contract specifications; sign-off on inspection report and/or MMRP. 5. Implement avoidance measures derived from agency coordination.	1. Qualified Staff Biologist 2. Member Agency 3. Contractor/ Member Agency 4. Qualified Biologist/ Construction Personnel 5. Contractor/ Member Agency	1. Prior to Construction 2. Prior to Construction 3. During Construction 4. Prior to Construction 5. During Construction	Member Agency

Impact 3.5.8: Impacts on Burrowing Owl

Construction of the proposed project could result in direct and indirect impacts to burrowing owls, if present in portions of the project alignment.

Mitigation Measure 3.5.8

The following measures to avoid, minimize, or mitigate impacts on burrowing owls would be incorporated into the project.

- In areas identified to provide potential burrowing owl habitat, preconstruction surveys for burrowing owls would be conducted by a qualified biologist 14-30 days prior to the start of construction. Surveys would cover grassland areas within 500-foot buffer and check for adult and juvenile burrowing owls and their habitat.

- Construction exclusion areas would be established around the occupied burrows in which no disturbance would be allowed to occur. During the non-breeding season (September 1 through January 31), the exclusion zone would extend 160 feet around occupied burrows. During the breeding season (February 1 through August 31), exclusion areas would extend 250 feet around occupied burrows. Passive relocation of owls is not proposed.

- A qualified biologist (the on-site monitor or otherwise) will monitor owl activity on the site to ensure the species is not adversely affected by the project.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Conduct surveys for adult and juvenile burrowing owls within a 500-foor buffer. 2. Establish construction exclusion areas of appropriate size, as defined by breeding seasons). 3. Monitor owl activity on construction sites.	1. Incorporate survey results and recommendations into project contract specifications. 2. Incorporate in contract specifications. 3. Summarize rosults and recommendations in daily log; sign-off on inspection report and/or MMRP.	1. Qualified Biologist 2. Contractor 3. Qualified Biologist	1. 14-30 days Prior to Construction 2. Prior and During Construction 3. During Construction	Member Agency

Impact 3.5.9: Impacts on Nesting Birds

Construction of the proposed project has the potential to affect nesting birds including Swainson's hawk, willow flycatcher, sharp-shinned hawk, Cooper's hawk, tri-colored blackbird, Bell's sage sparrow, golden eagle, northern harrier, California yellow-warbler, white-tailed kite, California horned lark, salt marsh common yellowthroat, loggerhead shrike, San Pablo song sparrow, California thrasher, rookeries, and additional bird species protected by California Fish and Game Code Section 3503 and the federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989).

Mitigation Measure 3.5.9

The appropriate Member Agency shall implement the following protection elements to avoid disturbing common and special-status nesting birds:

- Whenever feasible, vegetation shall be removed during the non-breeding season (generally defined as September 1 to January 31).
- For ground disturbing activities occurring during the breeding season (generally defined as February 1 to August 31), a qualified wildlife biologist will conduct preconstruction surveys of all potential nesting habitat for birds within 500 feet of earthmoving activities.
- If active bird nests are found during preconstruction surveys, a 500-foot no-disturbance buffer will be created around active raptor nests during the breeding season or until it is determined that all young have fledged. A 250-foot buffer zone will be created around the nests of other special-status birds. These buffer zones are consistent with CDFG avoidance guidelines; however, they may be modified in coordination with CDFG based on existing conditions at work locations.
- If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation is required. Trees and shrubs that have been determined to be unoccupied by special-status birds or that are located at least 500 feet from active nests may be removed.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Limit vegetation removal to non-breeding season (September 1 to January 31) 2. In the event that construction occurs during the breeding season (February 1 to August 31), conduct surveys of all potential nesting habitat within 500 feet of earthmoving activities. 3. In the event that active bird nests are found during preconstruction surveys, establish a 500 foot buffer around active nest sites. Establish a 250-foot buffer around other active special-status bird nests. 4. Remove trees, if necessary, that are not occupied by special-status birds.	1. Incorporate into contract specifications. 2. Incorporate survey results and recommendations into contract specifications. 3. Comply with CDFG guidelines. 4. Sign-off on inspection report and/ or MMRP.	1. Contractor 2. Qualified Biologist 3. Contractor 4. Contractor	1. During Construction 2. Prior to Construction 3. During Construction 4. During Construction	Member Agency

Impact 3.5.10: Impacts on Salt Marsh Harvest Mouse and Suisun Ornate Shrew

Construction of the proposed project has the potential to affect salt marsh harvest mouse and suisun ornate shrew and their habitat in and near the project alignments.

Mitigation Measure 3.5.10

The appropriate Member Agency shall implement protection measures to avoid and minimize impacts on salt marsh mammals during construction.

Where avoidance of sensitive habitat is not feasible (e.g., by bridging or bore and jack), consultation with CDFG and/or USFWS would be initiated. If species are present or presumed to be present after informal consultation with USFWS and/or CDFG, then a formal consultation and Biological Assessment in support of a Biological Opinion would be required. Such a consultation would proceed as part of the Corps 404 permitting program.

To avoid potential impacts on salt marsh harvest mouse and Suisun ornate shrew, a qualified biologist shall conduct specific preconstruction surveys prior to project initiation, following USFWS survey guidelines. The project proponent shall install exclusionary fences to prevent species movement into the project area, and a biologist with the appropriate permits to relocate these species shall live-trap mice and shrews within the enclosure and move these animals outside the fence. The biological monitor shall inspect these fences to ensure their integrity, and shall conduct an education workshop for contractors employees outlining species' biology, legislative protection, and construction restrictions to reduce potential impacts.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Consult with CDFG and/ or USFWS when avoidance of sensitive habitat is not feasible. 2. Conduct surveys for salt harvest mouse and Suisun ornate shrew. 3. Install exclusion fencing; conduct fence inspections. 4. Relocate species if necessary. 5. Conduct education workshops to inform construction personnel.	1. Compliance with recommendations and/ or Biological Assessment in support of a Biological Opinion. 2. Comply with USFWS guidelines; incorporate survey results and recommendations into contract specifications. 3. Comply with regulatory permit conditions; sign-off on inspection report and/ or MMRP. 4. Comply with regulatory permit conditions; sign-off on inspection report and/ or MMRP. 5. Incorporate into contract specifications; sign-off on inspection report and/or MMRP.	1. Member Agency/ Contractor 2. Qualified Biologist 3. Contractor/ Qualified Biologist 4. Qualified Biologist 5. Qualified Biologist/ Construction Personnel	1. Prior to Construction 2. Prior to Construction 3. During Construction 4. Prior to Construction 5. Prior to Construction	Member Agency

Impact 3.5.11: Impacts on Special-Status Bats

Construction of the proposed project has the potential to affect roosting or breeding special-status bats in and near the project alignments.

Mitigation Measure 3.5.11

The appropriate Member Agency shall implement protection measures to avoid and minimize impacts on special-status bats in and near project facilities during construction.

Concurrent with breeding bird surveys (**Mitigation Measure 3.5.8**), a qualified biologist will conduct preconstruction surveys for special-status bats at each bridge crossing location and in rural (i.e., non-road) areas where any large trees (e.g., > 24 inch diameter at breast height) will be removed. If an active roost is observed, a suitably-sized buffer (e.g., 100 to 150 feet) will be placed around the roost if it appears that trenching or other project activities may cause abandonment. Demolition activities must cease until juvenile bats are self-sufficient and will not be directly or indirectly impacted by activities.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.5.8. 2. Conduct species surveys at specified locations. 3. Establish 100-150-foot buffers around active roosts; cease demolition activities until juvenile bats are self-sufficient.	1. Summarize results and recommendations in daily log; sign-off on inspection report and/or MMRP. 2. Incorporate results and recommendations into contract specifications; sign-off on inspection report and/ MMRP. 3. Incorporate into contract specifications; sign-off on inspection report.	1. Qualified Biologist/ Contractor 2. Qualified Biologist 3. Contractor	1. Prior to and During Construction 2. Prior to construction 3. During Construction	Member Agency

Impact 3.5.12: Impacts on American Badger

Construction of the proposed project has the potential to affect American badger and its habitat in and near the project alignments.

Mitigation Measure 3.5.12

Mitigation Measure 3.5.12 would be implemented prior to ground-clearing activities to reduce potential impacts on badgers to a less-than-significant level.

Avoid and minimize impacts on badgers through preconstruction surveys prior to ground clearing and grading in annual grasslands habitat or areas that are known or suspected to support badger.

- Within 30-days prior to ground-clearing, a qualified biologist shall survey areas that provide potential badger habitat that occur within 100-feet of project activities. If no evidence of badgers presence is detected, no further mitigation is required. If active badger dens are identified within the project area, badgers will be passively relocated. If identified, vacated dens shall be temporarily covered using plywood sheets or similar materials to prevent badgers from returning to the project area during construction.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Conduct species surveys to identify potential badger habitat with 100 feet of project site. 2. In the event that badger dens are identified, passively relocate badgers.	1. Incorporate survey results and recommendations into contract specifications. 2. Comply with biologist recommendations.	1. Qualified Biologist 2. Qualified Biologist	1. 30 days Prior to Construction 2. Prior to Construction.	Member Agency

Impact 3.5.13: Impacts on Rare Plants

Project construction could result in impacts to listed and other special-status plants.

Mitigation Measure 3.5.13

Before the initiation of any vegetation removal or ground-disturbing activities in areas that provide suitable habitat for special-status plants, the following measures shall be implemented:

- A qualified botanist will conduct appropriately-timed surveys for special-status plant species, including those identified in Table 3.5.1, in all suitable habitat that would be potentially disturbed by the project.
- Surveys shall be conducted following CDFG- or other approved protocol.
- If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter to the appropriate agencies and no further mitigation will be required.

  If special-status plants are found during focused surveys, the following measures shall be implemented:

  - Information regarding the special-status plant population shall be reported to the California Natural Diversity Database (CNDDB).
  - If the populations can be avoided during project implementation, they shall be clearly marked in the field by a qualified botanist and avoided during construction activities. Before ground clearing or ground disturbance, all on-site construction personnel shall be instructed as to the species' presence and the importance of avoiding impacts to this species and its habitat.
  - If special-status plant populations cannot be avoided, consultations with CDFG and/or USFWS would be required. A plan to compensate for the loss of special-status

plant species could be required, detailing appropriate replacement ratios, methods for implementation, success criteria, monitoring and reporting protocols, and contingency measures that would be implemented if the initial mitigation fails; the plan would be developed in consultation with the appropriate agencies prior to the start of local construction activities.

- If mitigation is required, the project proponent shall maintain and monitor the mitigation area for 5 years following the completion of construction and restoration activities. Monitoring reports shall be submitted to the resource agencies at the completion of restoration and for 5 years following restoration implementation. Monitoring reports shall include photo-documentation, planting specifications, a site layout map, descriptions of materials used, and justification for any deviations from the mitigation plan.

Impact 3.5.14: Impacts on Heritage and Other Significant Trees

The proposed project could affect heritage and other significant tress.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Conduct plant surveys. 2. Implement measures if special-status plants are present. 3. Mark special status plants and inform construction personnel of their presence. 4. Consult with CDFG and/or USFWS if special-status plants cannot be avoided. 5. If compensatory mitigation is required, monitor mitigation area.	1. Comply with CDFG protocol. Incorporate results and recommendations into contract specifications. In the event that no special-status plants are present, document findings in a letter to the appropriate resources agency. 2. Report information regarding present special-status plants to CNDDB. 3. Sign-off on inspection report and/or MMRP. 4. Coordination with CDFG and or USFWS; compliance with recommendations; development of a compensation plan. 5. Submit annual monitoring reports to resource agencies that include photo documentation, planting specifications, site layout map.	1. Qualified Botanist 2. Qualified Botanist 3. Qualified Botanist 4. Member Agency 5. Member Agency	1. Prior to Construction 2. During Construction 3. Prior to Construction 4. Prior to Construction 5. 5 Years Following Construction	Member Agency

Mitigation Measure 3.5.14

The following measures will be implemented to avoid or reduce impacts to heritage or other significant trees:

1. Prior to the commencement of construction activities, trees necessary to remove or at risk of being damaged will be identified.

2. A certified arborist will inventory these trees, with the results of the inventory providing species, size (diameter at breast height, or *dbh*), and number of protected trees. Also, in consultation with the appropriate County, the arborist will determine if any are heritage or landmark trees.

3. If any protected trees are identified that will be potentially removed or damaged by construction of the proposed project, design changes will be implemented where feasible to avoid the impact.

4. Any protected trees that are removed will be replaced per applicable City and County tree protection ordinances. Foliage protectors (cages and tree shelters) will be installed to protect the planted trees from wildlife browse. The planted trees will be monitored as required by the ordinance, or regularly during a minimum two-year establishment period and maintenance during the plant establishment period will include irrigation. After the establishment period, the native tree plantings are typically capable of survival and growth without supplemental irrigation.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Identify trees at risk or trees to be removed. 2. Inventory trees. 3. Consult with counties to determine if any identified trees are landmark trees. 4. Replace removed trees. 5. Monitor replacement trees.	1. Incorporate recommendations into contract specifications. 2. Record results in inspection report. 3. Record results in inspection report. 4. Comply with City and County Tree ordinances. 5. Comply with City and County Tree ordinances; sign-off on inspection report/ and or MMRP.	1. Certified Arborist/ Contractor 2. Certified Arborist 3. Member Agency 4. Member Agency 5. Member Agency/ Certified Arborist	1. Prior to Construction 2. Prior to Construction 3. Prior to Construction 4. After Construction is Completed 5. Minimum of two years following completion of construction	Member Agency

Land Use and Agricultural Resources

Impact 3.6.3: Impact to Farmland

Construction activities associated with the project could temporarily affect the agricultural use of important farmland.

Mitigation Measure 3.6.1

To support the continued productive use of Important Farmlands in the project area, the appropriate Member Agency shall ensure that the following measures are taken, during construction of the project:

- Replace soils over pipelines in a manner that will minimize any negative impacts on crop productivity. The surface and subsurface soil layers will be stockpiled separately and returned to their appropriate locations in the soil profile.

- To avoid over-compaction of the top layers of soil, monitor pre-construction soil densities and return the surface soil (approximately the top 3 feet) to within 5 percent of original density.

- Where necessary, the top soil layers will be ripped to achieve the appropriate soil density. Ripping may also be used in areas where vehicle and equipment traffic have compacted the top soil layers, such as the construction staging areas.

- Avoid working or traveling on wet soil to minimize compaction and loss of soil structure. Before construction begins, geotechnical testing will be done to determine the moisture content limit above which work should not occur. Where working or driving on wet soil cannot be avoided, roadways will be capped with spoils that will be removed at the end of construction and/or ripped and amended with organic material as needed.

- Remove all construction-related debris from the soil surface. This will prevent rock, gravel, and construction debris from interfering with agricultural activities.

- Perform soil density monitoring during backfill and ripping to minimize excessive compaction and minimize effects on future agricultural land use.

- Remove topsoil before excavating in fields. Return it to top of fields to avoid detrimental inversion of soil profiles.

- Control compaction to minimize changes to lateral groundwater flow which could affect both irrigation and internal drainage.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Replace soils over pipelines in a manner that will minimize any negative impacts on crop productivity. Stockpile surface and subsurface soil layers separately and return them to their appropriate locations in the soil profile. 2. Monitor pre-construction soil densities and return the surface soil (approximately the top 3 feet) to within 5 percent of original density. 3. Where necessary, rip the top soil layers to achieve the appropriate soil density. 4. Conduct geotechnical testing to determine the moisture content limit above which work should not occur. Where working or driving on wet soil cannot be avoided, roadways will be capped with spoils that will be removed at the end of construction and/or ripped and amended with organic material as needed. 5. Remove all construction-related debris from the soil surface. 6. Perform soil density monitoring during backfill and ripping. 7. Remove topsoil before excavating in fields. Return it to top of fields to avoid detrimental inversion of soil profiles. 8. Control compaction to minimize changes to lateral groundwater flow.	1. Incorporate procedure into construction specifications. 2. Incorporate procedure into construction specifications. 3. Incorporate procedure into construction specifications. 4. Incorporate procedure into censtruction specifications. 5. Incorporate procedure into construction specifications. 6. Incorporate procedure into construction specifications. 7. Incorporate procedure into construction specifications. 8. Incorporate procedure into construction specifications.	1. Contractor/ Member Agency 2. Member Agency 3. Member Agency 4. Member Agency 5. Member Agency 6. Member Agency 7. Member Agency 8. Member Agency	1. Prior to Construction/ During Construction 2. Prior to Construction/ During Construction 3. Prior to Construction/ During Construction 4. Prior to Construction/ During Construction 5. Prior to Construction/ During Construction 6. Prior to Construction/ During Construction 7. Prior to Construction/ During Construction 8. Prior to Construction/ During Construction	Member Agency

Transportation and Traffic

Impact 3.7.1: Temporary Congestion and Delays

Project construction activities could adversely affect traffic and transportation conditions in the project area.

Mitigation Measure 3.7.1a

The appropriate Member Agency for each project component shall obtain and comply with local road encroachment permits for roads that are affected by construction activities.

The *Work Area Protection and Traffic Control Manual* includes requirements to ensure safe maintenance of traffic flow through or around the construction work zone, and safe access of police, fire, and other rescue vehicles (CJUTCC, 1996). In addition, the Traffic Management Plan (subject to local jurisdiction review and approval) required by **Mitigation Measure 3.7.1b**, below, would direct how traffic flow is safely maintained during project construction.

Mitigation Measure 3.7.1b

The construction contractor for each project component shall prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the appropriate local jurisdiction prior to construction. The plan shall:

- Identify hours of construction (between 8:00 AM and 7:00 PM; no construction shall be permitted between 10:00 PM and 7:00 AM);
- Identify hours for deliveries (Monday – Friday, 9:00 AM to 3:30 PM, or other hours if approved by the appropriate local jurisdiction);
- Include a discussion of haul routes, limits on the length of open trench, work area delineation, traffic control and flagging;
- Identify all access and parking restriction, pavement markings and signage requirements (e.g., speed limit, temporary loading zones);
- Layout a plan 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. 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 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 to coordinate all construction activities with the appropriate local school district at least two months in advance. The school district shall be notified of the timing, location, and duration of construction activities. Coordinate with the appropriate local school district to identify peak circulation periods at schools along the alignment(s) (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods. The construction contractor for each project component shall be required to maintain vehicle, pedestrian, and school bus service during construction 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;

- Include the requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and

- Specify the street restoration requirements pursuant to agreements with the local jurisdictions.

Mitigation Measure 3.7.1c

The appropriate Member Agency for each project component shall identify all roadway locations where special construction techniques (e.g., horizontal boring, directional drilling or night construction) will be used to minimize impacts to traffic flow.

Mitigation Measure 3.7.1d

The appropriate Member Agency for each project component shall develop circulation and detour plans to minimize impact to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone.

Mitigation Measure 3.7.1e

The appropriate Member Agency for each project component shall encourage construction crews to park at staging areas to limit lane closures in the public right-of-way.

Mitigation Measure 3.7.1f

The appropriate Member Agency for each project component shall consult with the appropriate public transit service providers at least one month prior to construction to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Obtain local road encroachment permits for roads that are affected by construction activities.	1. Incorporate permit regulations into contract specifications.	1. Member Agency 2. Member Agency 3. Member Agency 4. Contractor/ Member Agency	1. Prior to Construction 2. Prior to and During Construction	Member Agency

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
2. Implement a traffic control plan which includes the following measures such as identifying hours of construction and deliveries; identifying access and parking restriction, pavement markings and signage requirements; and planning for notifications; coordinating all construction activities with emergency service providers; 3. Identify all roadway locations where special construction techniques (e.g., horizontel boring, directional drilling or night censtruction) will be used to minimize impacts to traffic flow. 4. Develop circulation and detour plans to minimize impact to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone. 5. Encourage construction crews to park at staging areas to limit lane closures in the public right-of-way. 6. Consult with the appropriate public transit service providers at least one month prior to construction to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service.	2. Incorporate traffic control plan measures into contract specifications. 3. Incorporate techniques into contract specifications. 4. Incorporate plans into contract specifications. 5. Incorporate parking restrictions into contract specifications. 6. Incorporate transit service notification into contract specifications.	5. Member Agency 6. Contractor	3. Prior to and During Construction 4. Prior to and During Construction 5. During Construction 6. Prior to Construction	

Impact 3.7.2: Temporary Disruption to Access

Project construction activity would temporarily disrupt circulation patterns near sensitive land uses (schools, hospitals, fire stations, police stations, and other emergency providers).

Mitigation Measure 3.7.2a

Pipeline construction near schools shall occur when school is not in session (i.e., summer or holiday breaks). If this is not feasible, a minimum of two months prior to project construction, the appropriate Member Agency for each project component shall coordinate with the appropriate local school district to identify peak circulation periods at schools along the alignment(s) (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods.

Mitigation Measure 3.7.2b

A minimum of two months prior to project construction, the appropriate Member Agency for each project component shall coordinate with the appropriate local school district to identify alternatives to their Safe Routes to School program, alternatives for the school busing routes and stop locations, and other circulation provisions, as part of the Traffic Control/Traffic Management Plan (see **Mitigation Measure 3.7.1a**).

Mitigation Measure 3.7.2c

Implement **Mitigation Measure 3.7.1b**.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Restrict pipeline construction near schools to times when school is not in session (i.e., summer or holiday breaks). If this is not feasible, coordinate with the appropriate local school district a minimum of two months prior to project construction to identify peak circulation periods at schools along the alignment(s) (i.e., the arrival and departure of students), and require the contractor to avoid construction and lane closures during those periods.	1. Incorporate restrictions for schools into construction schedule and construction specifications.	1. Member Agency	1. Prior to and During Construction	Member Agency

Impact 3.7.3: Temporary Disruption to Access

Project construction activity would have temporary effects on alternative transportation or alternative transportation facilities.

Mitigation Measure 3.7.3

Implement **Mitigation Measure 3.7.1f.**

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.7.1f.	1. Incorporate transit service notification into contract specifications.	1. Member Agency	1. Prior to Construction	Member Agency

Impact 3.7.4: Temporary Displacement of Parking

Project construction activity would temporarily create parking demand for construction workers and construction vehicles, and displace parking spaces.

Mitigation Measure 3.7.4

Implement **Mitigation Measure 3.7.1e.**

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.7.1e.	1. Incorporate parking restrictions into contract specifications.	1. Contractor	1. During Construction	Member Agency

Impact 3.7.5: Temporary Potential Traffic Hazards

Project construction activity would temporarily increase the potential for accidents on project roadways.

Mitigation Measure 3.7.5

Implement **Mitigation Measure 3.7.1b** through **3.7.1f.**

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.7.1b. 2. Implement Mitigation Measure 3.7.1c. 3. Implement Mitigation Measure 3.7.1d. 4. Implement Mitigation Measure 3.7.1e. 5. Implement Mitigation Measure 3.7.1f.	1. Incorporate traffic control plan measures into contract specifications. 2. Incorporate techniques into contract specifications 3. Incorporate plans into contract specifications. 4. Incorporate parking restrictions into contract specifications. 5. Incorporate transit service notification into contract specifications.	1. Member Agency 2. Contractor/ Member Agency 3. Member Agency 4. Contractor 5. Member Agency	1. Prior to and During Construction 2. Prior te and During Construction 3. Prior to and During Construction 4. During Construction 5. Prior to Construction	Member Agency

Impact 3.7.6: Road Wear

Project construction activity would increase wear and tear on the designated haul routes used by construction vehicles to access the project work sites.

Mitigation Measure 3.7.6

Roads damaged by construction shall be repaired to a structural condition equal to that which existed prior to construction activity as per conditions of the encroachment permit (see **Mitigation Measure 3.7.1a**).

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Obtain local road encroachment permits for roads that are affected by construction activities.	1. Incorporate permit regulations into contract specifications.	1. Member Agency	1. Prior to Construction	Member Agency

Air Quality

Impact 3.8.1: Temporary Construction Emissions of Criteria Pollutants

Project construction activities could result in substantial short-term criteria pollutant emissions.

Mitigation Measure 3.8.1a: Construction Fugitive Dust Control Plan

The appropriate Member Agency shall require its contractor(s) to implement a dust control plan that shall include the following dust control procedures during construction as required by the BAAQMD:

- Water all active construction areas at least twice daily, taking into consideration temperature and wind conditions.
- Cover all trucks hauling soil, sand, and other loose materials *or* require trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways, consistent with **Mitigation Measure 3.1.2**, Erosion Control.
- Replant vegetation in disturbed areas as quickly as possible.

Mitigation Measure 3.8.1b: Construction Exhaust Emissions Control Plan

The appropriate Member Agency shall require its contractor(s) to implement an exhaust emissions control plan that shall include the following controls and practices:

- On road vehicles with a gross vehicular weight rating of 10,000 pounds or greater shall not idle for longer than five minutes at any location as required by Section 2485 of Title 13,

Division 3, Chapter 10, Article 1 of the California Code of Regulations. This restriction does not apply when vehicles remain motionless during traffic or when vehicles are queuing.

- Off road equipment engines shall not idle for longer than five minutes per Section 2449(d)(3) of Title 13, Division 3, Chapter 9, Article 4.8 of the California Code of Regulations. All vehicle operators shall receive a written idling policy to inform them of idling restrictions. The policy shall list exceptions to this rule that include the following: idling when queuing; idling to verify that the vehicle is in safe operating condition; idling for testing, servicing, repairing or diagnostic purposes; idling necessary to accomplish work for which the vehicle was designed (such as operating a crane); idling required to bring the machine to operating temperature as specified by the manufacturer; and idling necessary to ensure safe operation of the vehicle.

- Off road engines greater than 50 horsepower shall, at a minimum, meet Tier 2 emissions standards. When available, higher Tier engines shall be utilized.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement BAAQMD Basic Dust Control Measures. 2. Include exhaust controls in contractor specifications. 3. Implement exhaust control measures.	1. Incorporate in contract specifications and Sign-off on inspection report and/ or MMRP that measures are being implemented. 2. Review contract specifications. 3. Sign-off on inspection report and/ or MMRP.	1. Contractor 2. Contractor 3. Contractor	1. During Construction 2. Design and prior to construction 3. During Construction	Member Agency

Impact 3.8.4: Long term Increase in GHG Emissions

Project construction and operation would increase GHG emissions potentially interfering with the State's GHG reduction goals.

Mitigation Measure 3.8.1b: Construction Exhaust Emissions Control Plan

(see p. 3.8-22 above).

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.8.1b.	1. Review contract specifications.	1. Contractor	1. Design and During Construction	Member Agency

Noise

Impact 3.9.1: Temporary construction noise

Construction activity would violate standards established in the local general plans or noise ordinances, and/or would adversely affect nearby sensitive receptors.

Mitigation Measure 3.9.1

The appropriate Member Agency shall develop and implement a Construction Noise Reduction Plan that requires, at a minimum, the following:

- The contractor shall locate all stationary noise-generating equipment, including hammer bore and drill rigs, as far as possible from nearby noise-sensitive receptors. Stationary noise sources located within 500 feet of noise-sensitive receptors shall be equipped with noise reducing engine housings, and the line of sight between such sources and nearby sensitive receptors shall be blocked by portable acoustic barriers.

- The contractor shall assure that construction equipment with internal combustion engines have sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment shall be permitted to have an un-muffled exhaust.

- All construction activities within unincorporated areas shall be limited to between the hours depending upon the jurisdiction.

- Residences and other sensitive receptors within 200 feet of a construction area shall be notified of the construction schedule in writing, at least two weeks prior to the commencement of construction activities. This notice shall indicate the allowable hours of construction activities as specified by the applicable local jurisdiction or as defined by this mitigation measure. The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to complaints regarding construction noise. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance coordinator shall be conspicuously placed on construction site fences and entrances and included in the construction schedule notification sent to nearby residences and sensitive receptors.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Develop and Implement Construction Noise Reduction Plan. 2. Appropriately locate all stationary noise-generating equipment. 3. Use appropriate equipment.	1. Incorporate into contract specifications; sign-of on inspection report and/or MMRP. 2. Incorporate into contract specifications; sign-of on inspection report and/or MMRP.	1. Contractor 2. Contractor 3. Contractor 4. Contractor 5. Contractor 6. Contractor	1. Prior to and During Construction 2. During Construction 3. During Construction 4. During Construction	Member Agency

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
4. Limit construction activities to specified work hours. 5. Notify sensitive receptors of construction schedule. 6. Designate a noise disturbance coordinator.	3. Incorporate into contract specifications; sign-of on inspection report and/or MMRP. 4. Sign-of on inspection report and/or MMRP. 5. Sign-of on inspection report and/or MMRP. 6. Incorporate into contract specifications; sign-of on inspection report and/or MMRP.		5. At least two weeks Prior to Construction 6. Prior to Construction	

Impact 3.9.2: Temporary vibration impacts

Construction activities could expose sensitive receptors to excessive ground-borne vibration levels.

Mitigation Measure 3.9.2

The appropriate Member Agency will implement the following measure:

> The construction contractor shall use a trenchless technology (e.g., horizontal directional drill, lateral drilling, etc.) other than jack and bore when there are structures within 100 feet of the proposed activities. If the construction contractor provides the Member Agency with acceptable documentation indicating that alternative trenchless technology is not feasible for the crossing, the contractor shall develop and implement a Construction Vibration Mitigation Plan to minimize construction vibration damage using all reasonable and feasible means available, including siting the jack and bore as far a possible from all nearby structures. The plan shall provide a procedure for establishing thresholds and limiting vibration values for potentially affected structures based on an assessment of each structure's ability to withstand the loads and displacements due to construction vibrations. The plan should also include the development of a vibration monitoring plan to be implemented during construction of particular crossing.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement trenchless technology, when appropriate. 2. Develop a Construction Vibration Mitigation Plan in the event that trenchless technology is not feasible.	1. Incorporate into contract specifications. 2. Incorporate into contract specifications.	1. Contractor 2. Contractor	1. During Construction 2. Prior to and During Construction	Member Agency

Impact 3.9.3: Permanent Increases to Ambient Noise Levels

Operational activities could permanently generate noise levels above existing ambient levels in the vicinity of sensitive receptor locations.

Mitigation Measure 3.9.3

The appropriate Member Agency shall implement the following measure:

> All new pump stations shall be located within enclosed structures with adequate setback and screening to achieve acceptable regulatory noise standards for industrial uses as well as to achieve acceptable levels at the property lines of nearby residences, as determine by the applicable local jurisdiction. Noise enclosures shall be designed to reduce equipment noise levels by at least 20 dBA.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Enclose pump stations with screens.	1. Incorporate into construction specifications; Sign-off inspection report and/or MMRP.	1. Contractor/ Member Agency	1. Design and Prior to Construction	Member Agency

Hazards and Hazardous Materials

Impact 3.10.1: Exposure to Hazardous Materials

Project construction could expose workers and the public to hazardous materials that could be present in the soil or shallow groundwater encountered during excavation.

Mitigation Measure 3.10.1a

Project contract specifications shall require that, in the event that evidence of potential soil contamination such as soil discoloration, noxious odors, debris, or buried storage containers, is encountered during construction, the contractor will have a contingency plan for sampling and analysis of potentially hazardous substances, including use of a photoionization detector. The required handling, storage, and disposal methods shall depend on the types and concentrations of chemicals identified in the soil. Any site investigations or remediation shall comply with applicable laws and will coordinate with the appropriate regulatory agencies,

Mitigation Measure 3.10.1b

If unknown USTs are discovered during construction, the UST, associated piping, and impacted soil shall be removed by a licensed and experienced UST removal contractor. The UST and contaminated soil shall be removed in compliance with applicable county and state requirements governing UST removal.

Mitigation Measure 3.10.1c

Prepare a project-specific Health and Safety Plan that would apply to excavation activities. The plan shall establish policies and procedures to protect workers and the public from potential hazards posed by hazardous materials. The plan shall be prepared according to federal and California OSHA regulations and submitted to the appropriate agency with jurisdiction prior to beginning site activities.

Mitigation Measure 3.10.1d

Project contract specifications shall include a Dust Abatement Program to minimize potential public health impacts associated with exposure to contaminants in soil dust.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Require that in the event that evidence of potential soil contamination such as soil discoloration, noxious odors, debris, or buried storage containers, is encountered during construction, the contractor will have a contingency plan for sampling and analysis of potentially hazardous substances, including use of a photoionization detector. Any site investigations or remediation shall comply with applicable laws and will coordinate with the appropriate regulatory agencies. 2. Remove USTs, associated piping, and any impacted soil discovered during construction. 3. Prepare a project-specific Health and Safety Plan that would apply to excavation activities. The plan shall be prepared according to federal and California OSHA regulations and submitted to the appropriate agency with jurisdiction prior to beginning site activities. 4. Implement a Dust Abatement Program.	1. Incorporate requirement into construction specifications. 2. Incorporate requirement into construction specifications; Comply with applicable county and state requirements governing UST removal. 3. Incorporate plan requirements into construction specifications. 4. Incorporate program requirements into construction specifications.	1. Contractor/ Member Agency 2. Licensed UST Removal Contractor/ Member Agency 3. Member Agency 4. Member Agency	1. During Construction 2. During Construction 3. Prior to and During Construction 4. Prior to and During Construction	Member Agency

Impact 3.10.2: Release of Hazardous Materials During Construction

Project construction could increase the potential for accidental release of hazardous materials.

Mitigation Measure 3.10.2a

Consistent with the SWPPP requirements, the construction contractor shall be required to implement BMPs for handling hazardous materials onsite. The use of construction BMPs will minimize any adverse effects on groundwater and soils, and will include, but not limited to, the following:

- Follow manufacturers' recommendations and regulatory requirements for use, storage, and disposal of chemical products and hazardous materials used in construction;
- Spill control and countermeasures, including employee spill prevention/response training;
- Avoid overtopping construction equipment fuel gas tanks;
- During routine maintenance of construction equipment, properly contain and remove grease and oils; and
- Properly dispose of discarded containers of fuels and other chemicals.

Mitigation Measure 3.10.2b

The contractor shall follow the provisions of California Code of Regulations, Title 8, Sections 5163 through 5167 for General Industry Safety Orders to protect the project area from being contaminated by the accidental release of any hazardous materials and/or wastes. The local Certified Unified Program Agency (CUPA) will be contacted for any site-specific requirements regarding hazardous materials or hazardous waste containment or handling.

Mitigation Measure 3.10.2c

Oil and other solvents used during maintenance of construction equipment shall be recycled or disposed of in accordance with applicable regulatory requirements. All hazardous materials shall be transported handled, and disposed of in accordance with applicable regulatory requirements.

Mitigation Measure 3.10.2d

In the event of an accidental release of hazardous materials during construction, containment and clean up shall occur in accordance with applicable regulatory requirements.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement BMPs for handling hazardous materials onsite. 2. Protect the project area from being contaminated by the accidental release of any hazardous materials and/or wastes. Contact the local CUPA agency for any site-specific requirements regarding hazardous materials or hazardous waste containment or handling. 3. Recycle or dispose of oil and other solvents used during maintenance of construction equipment in accordanco with applicable regulatory requirements. 4. Contain and clean up accidental releases of hazardous materials.	1. Incorporate BMPs into construction specifications; sign-off on inspection report and/or MMRP. 2. Incorporate provisions into the construction specifications. Comply with the provisions of California Code of Regulations, Title 8, Sections 5163 through 5167 for General Industry Safety Orders. Coordinata with CUPA agency and comply with their recommendations. 3. Incorporate requirement into construction specifications; Comply with regulatery requirements. 4. Incorporate requirement into construction specifications; Comply with regulatory requirements.	1. Contractor/ Member Agency 2. Member Agency 3. Member Agency 4. Member Agency	1. During Construction 2. Prior to construction 3. During construction 4. During Construction	Member Agency

Impact 3.10.4: Wildland Fire Hazard

Construction activities in grassland areas could have the potential to expose people or equipment to risk of loss, injury, or death involving wildland fires.

Mitigation Measure 3.10.4a

For applicable Member Agencies, in consultation with local fire agencies, a Fire Safety Plan will be developed for each of the service areas associated with the project. The Fire Safety Plan(s) will describe various potential scenarios and action plans in the event of a fire.

Mitigation Measure 3.10.4b

For applicable Member Agencies, during project construction, all staging areas, welding areas, or areas slated for development using spark-producing equipment will be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall

be equipped with a spark arrestor in good working order. All vehicles and crews working at the project site(s) will have access to functional fire extinguishers at all times. In addition, construction crews will be required to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Develop Fire Safety Plan. 2. Clear all staging areas, welding areas, or areas slated for development using spark-producing equipment of dried vegetation or other material that could ignite. Equip construction equipment a spark arrestor in good working order. All vehicles and crews working at the project site(s) will have access to functional fire extinguishers at all times. Require construction crews to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.	1. Incorporate Fire Safety Plan into construction specifications. 2. Incorporate measures into construction specifications; sign-off on inspection report and/or MMRP.	1. Member Agency 2. Contractor/ Member Agency	1. Prior to Construction 2. During Construction	LGVSD/NMWD, Novato SD/NMWD

Public Services and Utilities

Impact 3.11.1: Temporary Effect on Response Times for Emergency Service Providers

Project construction activities could temporarily affect response times for emergency service providers.

Mitigation Measure 3.11.1

The Member Agencies will coordinate with local emergency service providers in its service area to inform them of the proposed construction activities and schedule, and provide temporary alternate access routes around construction areas as necessary.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Coordinate with local emergency providers to inform them of the proposed construction activities and schedule. 2. Provide alternate routes for emergency service providers around construction areas as necessary.	1. Incorporate into contract specifications 2. Sign-off on inspection report and/or MMRP	1. Member Agency/ Contractor 2. Contractor	1. Prior to construction 2. During Construction	Member Agency

Impact 3.11.2: Short-term Police and Fire Assistance

Project construction activities could require short-term police and fire protection services to assist in traffic management or in the event of an accident.

Mitigation Measure 3.11.2

Public service providers shall provide, upon request, a copy of the Traffic Control Plan to the related police and fire agencies for their review prior to construction. The appropriate Member Agency shall provide 72-hour notice to the local service providers prior to construction of individual pipeline segments. Discussion on the Traffic Control Plan is provided in Section 3.7, Traffic and Circulation.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Provide Traffic Control Plan to local emergency service providers for review. 2. Provide notice to local fire and police agencies to notify them of construction of individual segments of pipeline.	1. Sign-off on inspection report and/or MMRP. 2. Sign-off on inspection report and/or MMRP.	1. Contractor 2. Member Agency/ Contractor	1. Prior to Construction 2. 72 hours Prior to Construction at each site.	Member Agency

Impact 3.11.3: Temporary Accidental Disruption to Utility Services

Project construction could result in temporary planned or accidental disruption to utility services.

Mitigation Measure 3.11.3

The Member Agencies will identify utilities along the proposed pipeline routes and project sites prior to construction and implement the following measures:

a. Utility excavation or encroachment permits shall be obtained as required from the appropriate agencies. These permits include measures to minimize utility disruption. The service provider and its contractors shall comply with permit conditions regarding utility disruption.

b. Utility locations shall be verified through the use of the Underground Service Alert services and/or field survey (potholing).

c. As necessary, detailed specifications shall be prepared as part of the design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utility services shall be notified of construction plans and schedule. Arrangements shall be made with these entities regarding protection, relocation, or temporary disconnection of services.

d. In areas where the pipeline would traverse parallel to underground utility lines within five feet, the project applicant shall employ special construction techniques, such as trench wall-support measures to guard against trench wall failure and possible resulting loss of structural support for the excavated areas.

e. Residents and businesses in the project corridor shall be notified of any planned utility service disruption two to four days in advance, in conformance with county and state standards.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Acquire utility excavation or encroachment permits. 2. Verify utility locations using Underground Service Alert services and/or field survey. 3. Include procedures for excavation, support, and fill of areas around utility cables and pipes. 4. Coordinate with affected local utility services to notify them of the proposed construction activities and schedule. 5. Implement special construction techniques, as needed. 6. Notify residents and businesses in advance to inform them of proposed construction activities and schedule.	1. Comply with regulatory permit, Copies of approved permits will be available onsite. 2. Incorporate into contract specifications. 3. Incorporate in design and contract specifications 4. Incorporate into contract specifications; sign-off on inspection report and/or MMRP 5. Sign-off on inspection report and/or MMRP 6. Sign-off on inspection report and/or MMRP	1. Contractor/ Member Agency 2. Contactor 3. Contractor 4. Contractor/ Member Agency 5. Contractor 6. Contractor/ Member Agency	1. Prior to Construction 2. Prior to Construction 3. Prior to Construction 4. Prior to Construction 5. During Construction 6. Prior to Construction	Member Agency

Cultural Resources

Impact 3.12.1: Impact to Cultural Resources/Archaeological Sites

Project construction could affect existing cultural resources or uncover unknown and/or buried archaeological materials in areas of high prehistoric archaeological sensitivity.

Mitigation Measure 3.12.1

The standard Section 106 process outlined at 36 CFR Part 800 will be completed prior to supplying Federal funds to be used for construction of any facilities for the project. This includes all construction money that involves whole or in partial financing and includes both payment in advance or in reimbursement.

If project circumstances are such that it is infeasible to implement the measures identified below, a phased identification and evaluation strategy that accounts for the individual project effects will be developed in accordance with the procedures for doing so detailed in 36 CFR Part 800.4(b)(2). The alternative procedures would provide a similar level of accounting regarding the effects to cultural resources in a manner not inconsistent with the standard process provided for at 36 CFR Part 800. The alternative procedures agreed to in the Programmatic Agreement would need to be completed prior to construction of any actions that are subsidized with Federal funds. Pursuant to the Section 106 process, the appropriate Member Agency will incorporate the following measures:

Mitigation Measure 3.12.1a: Prepare a Cultural Resources Monitoring Plan

Prior to authorization to proceed, or issuance of permits, the applicant shall prepare and submit a cultural resources monitoring plan to the appropriate jurisdiction for review and approval. Monitoring shall be required for all surface alteration and subsurface excavation work including trenching, boring, grading, use of staging areas and access roads, and driving vehicles and equipment within all areas delineated as sensitive for cultural resources. A qualified professional archaeologist (cultural resources monitor) that is approved by each Member Agency in consultation with all affected jurisdictions shall prepare the plan. The plan shall address (but not be limited to) the following issues:

- Training program for all construction and field workers involved in site disturbance;
- Person(s) responsible for conducting monitoring activities, including Native American monitors;
- How the monitoring shall be conducted and the required format and content of monitoring reports, including any necessary archaeological re-survey of the final pipeline alignment (including the need to conduct shovel-test units or auger samples to identify deposits in advance of construction), assessment, designation and mapping of the sensitive cultural

resource areas on final project maps, assessment and survey of any previously unsurveyed areas;

- Person(s) responsible for overseeing and directing the monitors;
- Schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports;
- Procedures and construction methods to avoid sensitive cultural resource areas (i.e. boring conduit underneath recorded or discovered cultural resource site);
- Clear delineation and fencing of sensitive cultural resource areas requiring monitoring;
- Physical monitoring boundaries (e.g., 200-foot radius of a known site);
- Protocol for notifications in case of encountering of cultural resources, as well as methods of dealing with the encountered resources (e.g., collection, identification, curation);
- Methods to ensure security of cultural resources sites;
- Protocol for notifying local authorities (i.e. Sheriff, Police) should site looting and other illegal activities occur during construction.

Mitigation Measure 3.12.1b: Archaeological and Native American Monitoring

If an intact archaeological deposit is encountered, all soil disturbing activities in the vicinity of the deposit shall cease until the deposit is evaluated. The appropriate Member Agency, as necessary, shall retain the services of a Native American monitor and a qualified archaeological consultant that has expertise in California prehistory to monitor ground-disturbing within areas designated as being sensitive for buried cultural resources. The archaeological monitor shall immediately notify the appropriate Member Agency of the encountered archaeological deposit. The monitors shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, present the findings of this assessment to NBWRA and the appropriate Member Agency. During the course of the monitoring, the archaeologist may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to impact resources.

If a Member Agency, in consultation with the monitors, determines that a significant archaeological resource is present within their jurisdiction and that the resource could be adversely affected by the NBWRP, the Member Agency shall:

- Re-design the NBWRP to avoid any adverse effect on the significant archaeological resource; *or*,
- Implement an archaeological data recovery program (ADRP) (unless the archaeologist determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible). If the circumstances warrant an archaeological data recovery program, an ADRP shall be conducted. The project

archaeologist and the Member Agency shall meet and consult to determine the scope of the ADRP. The archaeologist shall prepare a draft ADRP that shall be submitted to the appropriate Member Agency for review and approval. The ADRP shall identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ADRP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, shall be limited to the portions of the historic property that could be adversely affected by NBWRP. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

Mitigation Measure 3.12.1c: Cultural Resources Assessment for Staging Areas

When locations for staging are defined the areas of potential effect should be subject to a cultural resources investigation that includes, at a minimum:

- An updated records search at the Northwest Information Center;
- An intensive survey of all areas within the lots;
- A report disseminating the results of this research; and,
- Recommendations for additional cultural resources work necessary to mitigate any adverse impacts to recorded and/or undiscovered cultural resources.

Mitigation Measure 3.12.1d: Inadvertent Discoveries

If discovery is made of items of historical or archaeological interest, the contractor shall immediately cease all work activities in the area (within approximately 100 feet) of discovery. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. After cessation of excavation the contractor shall immediately contact the NBWRA and appropriate Member Agency. The contractor shall not resume work until authorization is received from the appropriate Member Agency.

- In the event of unanticipated discovery of archaeological indicators during construction, the Member Agency shall retain the services of a qualified professional archaeologist to evaluate the significance of the items prior to resuming any activities that could impact the site.
- In the case of an unanticipated archaeological discovery, if it is determined that the find is unique under the National Historic Preservation Act (NHPA) and/or potentially eligible for listing in the National Register, and the site cannot be avoided, appropriate Member

Agency shall provide a research design and excavation plan, prepared by an archaeologist, outlining recovery of the resource, analysis, and reporting of the find. The research design and excavation plan shall be submitted to NBWRA and appropriate Member Agency and approved by the appropriate Member Agency prior to construction being resumed.

Mitigation Measure 3.12.1e: Project-level Cultural Resources Assessment

When project-level plans are completed for the Basic System; the Partially Connected System; and the Fully Connected System, NBWRA the appropriate Member Agency will conduct a cultural resources investigation for the APE that includes, at a minimum:

- An updated records search at the Northwest Information Center (NWIC);
- An intensive cultural resources survey of the Area of Potential Effect (APE);
- A report disseminating the results of this research; and,
- Recommendations for additional cultural resources work necessary to mitigate any adverse impacts to recorded and/or undiscovered cultural resources.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Prepare Cultural Resources Monitoring Plan. 2. Moniter predetermined culturally sensitive areas; cease work if cultural artifacts or humans remains are discovered. 3. Conduct cultural resources investigation for staging areas. 4. Cease work within 100 feet of a find and inform the appropriate Member Agency in the event of an inadvertent discovery of cultural resources. 5. Conduct a project-level Cultural Resources Assessment for program-level areas.	1. Incorporate into contract spocifications. 2. Incorporate into contract specifications, and make recommendations for design modification if necessary. 3. Incorporate into contract specifications. 4. Copies of DPR 422 or 523 shall be retained in Member Agency files; incorporate recommendations for design modification if necessary. 5. Incorporate into contract specifications, and make recommendations for design modification if necessary.	1. Qualified Archaeologist 2. Qualified Archaeologist and Native American Monitor 3. Qualified Archaeologist 4. Contractor/ Member Agency 5. Qualified Archaeologist	1. Prior to Construction 2. During Construction 3. Prior to Construction 4. During Construction 5. Following Project Design; Prior to Construction	Member Agency

Impact 3.12.2: Discovery of Human Remains

Project construction could result in damage to previously unidentified human remains.

Mitigation Measure 3.12.2: Discovery of Human Remains

If potential human remains are encountered, the appropriate Member Agency shall halt work in the vicinity of the find and contact the county coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. If the coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Commission (NAHC). As provided in Public Resources Code Section 5097.98, the NAHC shall identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent makes recommendations for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. In the event of discovery of human remains, cease work and contact county coroner and NAHC if necessary.	1. Sign-off on inspection report and/ or MMRP; coordinate with NAHC.	1. Contractor/ Member Agency	1. During Construction	Member Agency

Recreation

Impact 3.13.1: Temporary Disturbance

Project construction could result in short-term disturbance adjacent to recreational facilities.

Mitigation Measure 3.13.1a

The appropriate Member Agency shall coordinate with the appropriate local and regional agencies to identify detour routes for the bikeways and trails during construction where feasible, as part of the Traffic Control/Traffic Management Plan (see **Measure 3.11.1a**).

Mitigation Measure 3.13.1b

Implement Mitigation Measures 3.8-1a through 3.8.1b, and Mitigation Measures 3.9-1 through 3.9-3.

Mitigation Measure 3.13.2

Before beginning construction, the contractor will develop, in consultation with the appropriate representative(s) of the affected park's managing agency, a plan indicating how public access to the park will be maintained during construction. If needed, flaggers will be stationed near the

construction activity area to direct and assist members of the public around the activity areas while maintaining access to the parks.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Identify and establish detours for disrupted bikeways and trails. 2. Maintain public access; station flaggers to assist in directing public. 3. Implement Mitigation Measure 3.8.1a. 4. Implement Mitigation Measure 3.8.1b. 5. Implement Mitigation Measure 3.9.1. 6. Implement Mitigation Measure 3.9.2. 7. Implement Mitigation Measure 3.9.3.	1. Coordination with local and regional agencies. 2. Coordination with local and regional agencies. 3. Incorporate in contract specifications and Sign-off on inspection report and/ or MMRP that measures are being implemented. 4. Review contract specifications. 5. Incorporate into contract specifications; sign-of on inspection report and/or MMRP. 6. Incorporate into contract specifications. 7. Incorporate into contract specifications; sign-of on inspection report and/or MMRP.	1. Contractor/ Member Agency 2. Contractor/ Member Agency 3. Contractor 4. Contractor 5. Contractor 6. Contractor 7. Contractor/ Member Agency	1. Prior to and During Construction 2. Prior to and During Construction 3. Design and Prior to Construction 4. Design and prior to Construction 5. Prior to and During Construction 6. Prior to and During Construction 7. Design and Prior to Construction	Member Agency

Aesthetics

Impact 3.14.1: Temporary Impact to Scenic Vistas

NBWRP construction activities could temporarily affect scenic vistas or corridors in the NBWRP area.

Mitigation Measure 3.14.1a

Following construction activities, disturbed areas shall be restored to baseline conditions, including repaving roadways, replanting trees, and/or reseeding with a native seed mix typical of the immediately surrounding area.

Mitigation Measure 3.14.1b

Berms around constructed reservoirs shall be vegetated with native seed mixes to soften the visual effect of the reservoirs from adjacent roadways.

Mitigation Measure 3.14-1c

Design elements shall be incorporated to enhance visual integration of the booster pump station and distribution pump station with their surroundings. Proposed facilities shall be painted low-glare earth-tone colors that blend with the surrounding terrain. Highly reflective building materials and/or finishes shall not be used in the designs for proposed facilities.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Restore disturbed areas to baseline conditions by repaving, replanting, and reseeding land. 2. Incorporate buffers, integrate natural design elements, and use appropriate building materials.	1. Inspect final site conditions after construction and verify its condition is it equivalent to that prior to construction. Incorporated into construction specifications. 2. Review construction specifications.	1. Contractor/ Member Agency 2. Contractor	1. After Construction 2. Design and During Construction	Member Agency

Impact 3.14.2: Impact to Views Along Scenic Roadways

Implementation of NBWRP could affect views along eligible or designated Caltrans Scenic Highways, or locally-defined scenic routes.

Mitigation Measures

The appropriate Member Agency will implement the following measures:

Mitigation Measure 3.14.1a
Mitigation Measure 3.14.1b

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.14.1a. 2. Implement Mitigation Measure 3.14.1b.	1. Review construction specifications. 2. Review construction specifications and landscape design.	1. Contractor/ Member Agency 2. Contractor	1. After Construction 2. Design and During Construction	Member Agency

Impact 3.14.3: Source of Light or Glare

NBWRP components could introduce new sources of light and glare on the project sites.

Mitigation Measures

The appropriate Member Agency will implement the following measures:

Mitigation Measure 3.14.3a: The exterior lighting installed around the operational and capacity storage reservoirs, distribution pump station, storage tanks, and booster pump station shall be of a minimum standard required to ensure safe visibility. Lighting also shall be shielded and directed downward to minimize impacts of light and glare.

Mitigation Measure 3.14.3b: All exterior lighting is directed downward and oriented to insure that limited light source is directly visible from neighboring residential areas. If necessary, landscaping would be provided around proposed facilities. The vegetation would be selected, placed, and maintained to minimize off-site light and glare onto surrounding areas.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Incorporate shielded, downward-oriented, low intensity light sources in design. 2. Plant vegetation to act as a natural buffer around areas that require lighting.	1. Review construction specifications. 2. Review construction specifications.	1. Member Agency 2. Member Agency	1. During Design 2. During Design and After Construction	Member Agency

Impact 3.14.4: Long-term Impact to Aesthetic Character

Development of the proposed facilities, particularly pump stations and storage reservoirs, would permanently alter the aesthetic character of the project area.

Mitigation Measures

The appropriate Member Agency will implement the following measures:

Mitigation Measure 3.14.4a: After construction of any facility that is above grade and visible to sensitive receptors, visual screening and vegetation measures will be implemented to reduce impacts to scenic views. Trees or other suitable vegetation along the fenceline of the facility should be incorporated to reduce the industrial appearance of the structures. Similarly, berms for new storage ponds or pond reconfiguration will be re-vegetated to reduce the barren appearance of the berms.

Mitigation Measure 3.14.4b: Dark colored, non-reflective building materials should be used for project components that cause potentially significant impact from glare to visual resources.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Install screens and vegetation, and trees along fenceline; seed reconfigured berms with native grasses. 2. Integrate natural design elements, and use appropriate building materials.	1. Review construction specifications and landscape design. 2. Review construction specifications.	1. Contractor/ Member Agency 2. Contractor/ Member Agency	1. Design and After Construction 2. Design and During Construction	Member Agency

Cumulative Impacts

Impact 4.1. Construction-related Cumulative Impacts.

Concurrent construction of several projects within the Sonoma, Napa, and Marin County areas could result in cumulative short-term impacts associated with construction activities. If implemented at the same time as other construction projects, construction of facilities under all three of the alternatives could contribute to potential short-term cumulative effects associated with erosion, cultural resource disturbance, disturbance of adjacent land uses, traffic disruption, dust generation, construction noise, aesthetics, air quality, biological resources, hazardous materials, water quality, public services and utilities. However, construction-related impacts would not result in long term alteration of the environment, and could be mitigated to less than significant levels through the use of mitigation measures identified throughout Chapter 3 of the Draft EIR.

Mitigation Measure

The appropriate Member Agency will implement the following measure:

> **Mitigation Measure 4.1a:** Member Agencies shall coordinate construction activities along selected alignments to identify overlapping pipeline routes, project areas, and construction schedules. To the extent feasible, construction activities shall be coordinated to consolidate the occurrence of short-term construction-related impacts.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Coordinate construction activities to identify overlapping routes and construction schedules.	1. Incorporate into contract specifications.	1. Member Agency	1. Prior to Construction	Member Agency

Impact 4.5

Concurrent construction of NBWRP with other projects proposed in the Sonoma, Napa, and Marin County area, and other water and wastewater infrastructure projects, could result in cumulative long-term impacts to biological resources.

Mitigation Measures

Mitigation Measures in Section 3.5.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Implement Mitigation Measure 3.5.1. 2. Implement Mitigation Measure 3.5.2. 3. Implement Mitigation Measure 3.5.3. 4. Implement Mitigation Measure 3.5.5. 5. Implement Mitigation Measure 3.5.6. 6. Implement Mitigation Measure 3.5.9.	1. Comply with regulatory permit; Sign-off on inspection report and/ or MMRP. 2. Comply with regulatory permit; Sign-off on inspection report and/ or MMRP. 3. Comply with regulatory permit; Sign-off on inspection report and/ or MMRP. 4. Comply with regulatory permit; Sign-off on inspection report and/ or MMRP. 5. Comply with regulatory permit; Sign-off on inspection report and/ or MMRP. 6. Incorporate into contract specifications.	1. Member Agency/ Contractor 2. Member Agency/ Contractor 3. Member Agency/ Contractor 4. Member Agency/ Contractor 5. Member Agency/ Contractor 6. Contractor/ Qualified Biologist	1. Prior to and During Construction 2. Prior to and During Construction 3. Prior to and During Construction 4. Prior to and During Construction 5. Prior to and During Construction 6. Prior to and During Construction	Member Agency

Growth Inducement and Secondary Effects of Growth

Impact 5.1. Direct and Indirect Impacts on Growth.

NBWRP would provide recycled water for urban, agricultural, and environmental uses, and as such, would contribute to the provision of adequate water supply to support a level of growth that is consistent with the amount planned and approved within the General Plans of Marin, Sonoma and Napa Counties. No appreciable growth in population or employment would occur as a direct result of construction or operation of the proposed facilities. However, development under the General Plans accommodated by the proposed project would result in secondary environmental

effects, which include effects that would be significant and unavoidable. No additional impacts are anticipated beyond those identified in General Plan EIRs for each County.

Mitigation Measure 5.1a

In order to maintain consistency with the Napa County General Plan, Napa County and Napa SD will approve the MST Local Options 1 and/or 2. This will provide approximately 530 AFY of recycled water that would be available for the existing users in the MST area. Trunk facilities may accommodate service of up to 1,400 AFY of service to existing agricultural irrigators only. Any expansion of service beyond the 1,400 AFY or provision of service to new land uses would be subject to approval by the County Planning Department and the Napa County Board of Supervisors.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule	Responsible Agency
1. Conduct additional land use and CEQA analysis prior to service to un-irrigated parcels or beyond above 1400 AFY.	1. CEQA approval process.	1. Napa County and Napa SD	1. Prior to Project Approval	Napa County/ Napa SD

EXHIBIT D – NORTH BAY WATER RECYCLING PROGRAM RECYCLED WATER SYSTEM EXPANSION PROJECT

CALIFORNIA STATE LANDS COMMISSION STATEMENT OF FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS

1.0 INTRODUCTION

The California State Lands Commission (CSLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), makes these findings and this Statement of Overriding Considerations to comply with CEQA as part of its discretionary approval to authorize issuance of a General Lease – Public Agency Use, to the city of Novato (City), for use of sovereign lands associated with the proposed North Bay Water Recycling Program Recycled Water System Expansion Project (Project). (See generally Pub. Resources Code, § 21069; State CEQA Guidelines, § 15381.)[1] The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions. (Pub. Resources Code, §§ 6301, 6306.) All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

The CSLC is a responsible agency under CEQA for the Project because the Project may not go forward without approval of a lease by the CSLC. Other related agency actions are described below.

- In 2008-09, the Sonoma County Water Agency (SCWA), acting as the CEQA lead agency for the North Bay Water Reuse Authority (NBWRA),[2] prepared an Environmental Impact Report/Environmental Impact Statement for the North Bay Water Recycling Program (program EIR/EIS) (State Clearinghouse [SCH] No. 2008072096) that covered multiple projects within NBWRA member agency service areas. On December 16, 2009, the SCWA certified the EIR and adopted a Mitigation Monitoring Program (MMP), Findings, and a Statement of Overriding Considerations.
- In December 2009, the North Marin Water District (District), acting as a responsible agency for specific projects within its service area that were analyzed

[1] CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, Title 14, section 15000 et seq.

[2] The NBWRA is comprised of 10 local municipal, water and sanitation agencies in the North San Pablo Bay region that are working together to "put recycled water to its broadest and most beneficial use" (see www.nbwra.org/about-nbwra). Current members of NBWRA include: Las Gallinas Valley Sanitary District; Napa County; Napa Sanitation District; Novato Sanitary District; North Marin Water District; Sonoma County Water Agency; Sonoma Valley County Sanitation District; Marin Municipal Water District; City of American Canyon (Associate Member); City of Petaluma; County of Marin (Associate Member).

in the program EIR/EIS, approved the Project and adopted the MMP, Findings, and a Statement of Overriding Considerations.

The SCWA and District determined that the North Bay Water Recycling Program and Project could have significant environmental effects on 15 environmental resources:

- Geology and Soils;
- Surface Hydrology;
- Water Quality;
- Biological Resources;
- Land Use and Agricultural Resources;
- Transportation and Traffic;
- Air Quality;
- Noise;
- Hazards and Hazardous Materials;
- Public Services and Utilities;
- Cultural Resources;
- Recreation;
- Aesthetics;
- Cumulative Impacts; and
- Growth Inducement and Secondary Effects of Growth.

In approving the North Bay Water Recycling Program and Project, respectively, the SCWA and District imposed mitigation measures for significant effects on the environment as conditions of approval and concluded that impacts would be substantially lessened with implementation of these mitigation measures such that the impacts would be less than significant. Even with the integration of all feasible mitigation, the SCWA and District concluded that the North Bay Water Recycling Program and the Project may still have a significant impact on Growth Inducement and Secondary Effects of Growth, and both agencies adopted a Statement of Overriding Considerations to support their respective approvals despite the significant and unavoidable impact.

Under the approved North Bay Water Recycling Program, the Project was included in the Phase 1 Implementation Plan, in which the District, in partnership with the Novato Sanitary District (SD), would implement service in the Novato Central Service Area through construction of a recycled water distribution system from the Novato SD Waste Water Treatment Plant south to Rowland Boulevard and the Vintage Oaks shopping center, and across Highway 101 to serve urban users west of Highway 101. In finalizing the design of the Central Service Area segment of the Project, the following minor changes to the approved Phase 1 pipeline distribution system alignment resulted:

- a reroute of the pipeline from Novato SD Recycled Water Facility to the Vintage Oaks shopping center;
- moving the Highway 101 Crossing;
- extending the distribution pipeline to connect to an existing surplus tank and serve existing customers on Ignacio Boulevard;
- eliminating the 18-inch recycled trunk line to serve Novato High School; and
- suspension of the recycled water pipeline on the bridge (Rowland Way) over Novato Creek, which overlies land under the jurisdiction of the CSLC.

In September 2015, the District, as a responsible agency, approved an Addendum to the EIR to address the Project changes listed above. The Addendum states that the recycled water pipeline “would extend off of the existing bridge wing-walls and would not

require work within the riparian corridor or streambanks. No excavation would be required." Therefore, of the 15 resource areas with potential significant environmental effects noted in the program EIR/EIS, Project components within the CSLC's jurisdiction could have significant environmental effects on seven resource areas:

- Geology and Soils;
- Surface Hydrology;
- Biological Resources
- Air Quality;
- Noise;
- Cumulative Impacts; and
- Growth Inducement and Secondary Effects of Growth.

As a responsible agency, the CSLC complies with CEQA by considering an environmental document and reaching its own conclusions on whether, how, and with what conditions to approve a project. In doing so, the CSLC may require changes in a project to lessen or avoid the effects, either direct or indirect, of that part of the project which the CSLC will be called on to carry out or approve, specifically, the work proposed on lands under the jurisdiction of the CSLC. In order to ensure the identified mitigation measures and/or Project revisions are implemented for this Project, the CSLC adopts the Mitigation Monitoring Program (MMP) as set forth in Exhibit C as part of its Project approval. In addition, because the significant and unmitigable impact associated with Growth Inducement and Secondary Effects of Growth still applies to the portion of the Project on lands under the CSLC's jurisdiction, the CSLC also adopts the Statement of Overriding Considerations set forth in this exhibit as part of its approval.

2.0 FINDINGS

The CSLC's role as a responsible agency affects the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required under CEQA by each "public agency" that approves a project for which an EIR has been certified that identifies one or more significant impacts on the environment (Pub. Resources Code, § 21081, subd. (a); State CEQA Guidelines, § 15091, subd. (a).) Because the program EIR/EIS, as well as the Addendum approved by the District for the Project, identify potentially significant impacts that fall within the scope of the CSLC's approval, the CSLC makes the Findings set forth below as a responsible agency under CEQA. (State CEQA Guidelines, § 15096, subd. (h); *Resource Defense Fund* v. *Local Agency Formation Comm. of Santa Cruz County* (1987) 191 Cal.App.3d 886, 896-898.)

While the CSLC must consider the environmental impacts of the Project as set forth in the program EIR/EIS and Addendum, the CSLC's obligation to mitigate or avoid the direct or indirect environmental impacts of the Project is limited to those parts which it decides to carry out, finance, or approve (Pub. Resources Code, § 21002.1, subd. (d); State CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-(g).) Accordingly, because the CSLC's exercise of discretion involves only issuing an amendment to an existing lease for this Project, the CSLC is responsible for considering only the environmental impacts related to lands or resources subject to the CSLC's jurisdiction. With respect to all other impacts associated with implementation of the Project, the CSLC is bound by the legal presumption that the program EIR/EIS and the Addendum fully comply with CEQA.

The CSLC has reviewed and considered the information contained in the program EIR/EIS and Addendum. All significant adverse impacts of the Project identified in the program EIR/EIS and Addendum relating to the CSLC's approval of an amended lease, which would allow the District to suspend a recycled water pipeline on a bridge over Novato Creek, are included herein and organized according to the resource affected.

These Findings, which reflect the independent judgment of the CSLC, are intended to comply with CEQA's mandate that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects unless the agency makes written findings for each of those significant effects. Possible findings on each significant effect are:

(1) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the program EIR/EIS and Addendum.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the CSLC. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(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 program EIR/EIS.[3]

A discussion of supporting facts follows each Finding.

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.
- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.
- Wherever Finding (3) is made, the CSLC has determined that, even after implementation of all feasible mitigation measures and consideration of feasible alternatives, the identified impact will exceed the significance criteria set forth in the EIR. Furthermore, to the extent that potentially feasible measures have been alleged or proposed, the Findings explain why certain economic, legal, social, technological or other considerations render such possibilities infeasible. The significant and unavoidable impacts requiring Finding (3) are identified in the program EIR, discussed in the Responses to Comments, and explained below. Having done everything it can to avoid and substantially lessen these effects consistent with its legal authority and CEQA, the CSLC finds in these instances that overriding economic, legal, social, and other benefits of the approved Project outweigh the resulting significant and unavoidable impacts. The Statement of Overriding Considerations adopted as part of this exhibit applies to all such

[3] See Public Resources Code section 21081, subdivision (a) and State CEQA Guidelines section 15091, subdivision (a).

unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

These Findings are supported by substantial evidence contained in the program EIR/EIS and Addendum and other relevant information provided to the CSLC or existing in its files, all of which is contained in the administrative record. The mitigation measures are briefly described in these Findings; more detail on the mitigation measures is included in the program EIR/EIS and Addendum.

The CSLC is the custodian of the record of proceedings upon which its decision is based. The location of the CSLC's record of proceedings is in the Sacramento office of the CSLC, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

A. SUMMARY OF FINDINGS

The program EIR/EIS and Addendum identified the following environmental issue areas as having either No Impact or Less Than Significant impacts:

- Environmental Justice..... No Impact
- Groundwater..... Less than Significant Impact
- Socioeconomics..... Less than Significant Impact

For the remaining potentially significant effects, the Findings are organized by significant impacts to lands under the jurisdiction of the CSLC within the program EIR/EIS and Addendum issue areas as presented below.

B. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION

The impacts identified below were determined in the program EIR/EIS and Addendum to be potentially significant absent mitigation; after application of mitigation, however, the impacts were determined to be less than significant. For the full text of each mitigation measure (MM), please refer to Exhibit C, Attachment C-1.

1. Geology and Soils	Impact 3.1.1
2. Surface Hydrology	Impact 3.2.4
3. Biological Resources	Impact 3.5.9
4. Air Quality	Impact 3.8.1a and b
5. Noise	Impacts 3.9.1 and 3.9.2
6. Cumulative Impacts	Impact 4.1

1. GEOLOGY AND SOILS

CEQA FINDING NO. GEO-1	
Impact:	**Impact 3.1.1: Seismicity.** In the event of a major earthquake in the Bay Area Region, the proposed facilities could be subject to fault rupture, severe ground shaking, liquefaction, or earthquake induced landslides capable of causing injury, structural damage, pipeline rupture and service interruption.
Finding(s):	(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the program EIR/EIS and Addendum.

FACTS SUPPORTING THE FINDING(S)

Incorporation of seismic criteria as it applies to the design of the project components including the wastewater treatment plant improvements and the recycled water conveyance system would comply with the California Building Code. Implementation of standard geotechnical measures would mitigate the potential of geological hazards.

Implementation of **MM 3.1.1 (see full text in Exhibit C, Attachment C-1)** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

2. SURFACE HYDROLOGY

CEQA FINDING NO. HYD-1	
Impact:	**Impact 3.2.4 Flooding – Sea Level Rise Impact.** Sea-level rise could affect operation of project facilities.
Finding(s):	(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the program EIR/EIS and Addendum.

FACTS SUPPORTING THE FINDING(S)

Implementation of design measures, such as siting, access placement, access vault extension above projected water elevation, water tight vaults, and site protection would reduce the impact related to sea-level rise.

Implementation of **MM 3.2.4 (see full text in Exhibit C, Attachment C-1)** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

3. BIOLOGICAL RESOURCES

CEQA FINDING NO. BIO-1

Impact: **Impact 3.5.9 Impacts on Nesting Birds.** Construction of the proposed project has the potential to affect nesting birds including Swainson's hawk, willow flycatcher, sharp-shinned hawk, Cooper's hawk, tri-colored blackbird, Bell's sage sparrow, golden eagle, northern harrier, California yellow-warbler, whitetailed kite, California horned lark, salt marsh common yellowthroat, loggerhead shrike, San Pablo song sparrow, California thrasher, rookeries, and additional bird species protected by California Fish and Game Code Section 3503 and the federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989). Although not discussed in the program EIR/EIS or Addendum, there may also be the potential for birds to nest on the bridge over Novato Creek.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the program EIR/EIS and Addendum.

FACTS SUPPORTING THE FINDING(S)

Measures such as conducting surveys for nesting birds prior to construction and restricting construction activities to non-breeding season would minimize the impact to nesting birds.

Implementation of **MM 3.5.9 (see full text in Exhibit C, Attachment C-1)** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

4. AIR QUALITY

CEQA FINDING NO. AQ-1

Impact: **Impact 3.8.1. Temporary Construction Emission of Criteria Pollutants.** Project construction activities could result in substantial short-term criteria pollutant emissions.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the program EIR/EIS and Addendum.

FACTS SUPPORTING THE FINDING(S)

Implementation of fugitive dust control plan and exhaust emissions plan would minimize emissions of criteria air pollutants during construction.

Implementation of **MMs 3.8.1a and 3.8.1b (see full text in Exhibit C, Attachment C-1)** has been incorporated into the Project to reduce this impact to a less than significant level.

MM 3.8.1a: Construction Fugitive Dust Control Plan;
MM 3.8.1b: Construction Exhaust Emissions Control Plan.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

5. NOISE

CEQA FINDING NO. N-1

Impact: **Impact 3.9.1. Temporary Construction Noise.** Construction activity would violate standards established in the local general plans or noise ordinances, and/or would adversely affect nearby sensitive receptors.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the program EIR/EIS and Addendum.

FACTS SUPPORTING THE FINDING(S)

Construction noise levels would be limited to hours set forth in applicable noise ordinances. Construction would be short-term and temporary; therefore sensitive receptors would only be exposed to increased noise levels for a short duration.

Implementation of **MM 3.9.1 (see full text in Exhibit C, Attachment C-1)** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. N-2

Impact: **Impact 3.92. Temporary Vibration Impacts.** Construction activities could expose sensitive receptors to excessive ground-borne vibration levels.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the program EIR/EIS and Addendum.

FACTS SUPPORTING THE FINDING(S)

Most of the proposed pipelines would be installed along existing roadways and may not require use of jack and bore tunneling. In the event jack and bore tunneling would be required, the impacts from ground borne vibration would minimized by implementing a construction vibration mitigation plan.

Implementation of **MM 3.9.2 (see full text in Exhibit C, Attachment C-1)** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

6. CUMULATIVE IMPACTS

CEQA FINDING NO. CUM-1	
Impact:	**Impact 4.1: Construction-related Cumulative Impacts.** Concurrent construction of several projects within the Sonoma, Napa, and Marin County areas could result in cumulative short-term impacts associated with construction activities.
Finding(s):	(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the program EIR/EIS and Addendum.

FACTS SUPPORTING THE FINDING(S)

If implemented at the same time as other construction projects, construction of facilities could contribute to potential short-term cumulative effects associated with erosion, cultural resource disturbance, disturbance of adjacent land uses, traffic disruption, dust generation, construction noise, aesthetics, air quality, biological resources, hazardous materials, water quality, public services and utilities. However, construction-related impacts would not result in long-term alteration of the environment, and could be mitigated to less than significant levels through the use of mitigation measures identified in the program EIR/EIS and Addendum.

In addition, implementation of **MM 4.1 (see full text in Exhibit C, Attachment C-1)** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

C. SIGNIFICANT AND UNAVOIDABLE IMPACTS

The following impacts were determined in the program EIR/EIS, and by the District in its original Project approval in 2009, to be significant and unavoidable (in adopting the 2015 Addendum, the District did not adopt a Statement of Overriding Considerations). The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

1. Growth Inducement and Secondary Effects of Growth	Impact 5.1 Secondary Effects of Growth

GROWTH INDUCEMENT AND SECONDARY EFFECTS OF GROWTH

CEQA FINDING NO. GI-1

Impact: **Impact 5.1 Secondary Effects of Growth**.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the program EIR/EIS.

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

FACTS SUPPORTING THE FINDING(S)

No appreciable growth in population or employment would occur as a direct result of the proposed Project. However, provision of recycled water supply would assist in the provision of adequate water supplies to support planned development under the approved General Plans within the City of Novato and Marin County. Buildout under the General Plans would include secondary effects to the environment, as identified in the City of Novato General Plan EIR and the Marin County General Plan EIR, and summarized in the program EIR/EIS. The environmental effects of growth most commonly identified as significant and unavoidable in the service area include those identified in the City of Novato General Plan: displacement of wetlands, operation of highways at unacceptable levels of service, and increased emergency service demand and impacts to emergency service response time. The environmental effects of growth identified as significant and unavoidable identified in the Marin County General Plan include conflicts with agricultural land use or other existing land uses, consistency with air quality regulations, permanent loss of sensitive species or habitat, alteration of drainage patterns, impacts to water supply and water quality within unincorporated Marin County. These effects are described in Chapter 5, Growth Inducing Effects and Secondary Effects of Growth, of the program EIR/EIS. The North Bay Water Recycling Program projects provide a level of recycled water supply consistent with the assumptions of the approved City of Novato General Plan and Marin County General Plan. As noted in these General Plans, some of these impacts will be reduced by identified mitigation measures, but the impacts may not be reduced to a less than significant level.

Implementation of **MM 5.1a (see full text in Exhibit C, Attachment C-1)** has been incorporated into the Project and would reduce the severity of Impact 5.1, although not necessarily to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

3.0 STATEMENT OF OVERRIDING CONSIDERATIONS

A. INTRODUCTION

This section addresses the CSLC's obligations under Public Resources Code section 21081, subdivisions (a)(3) and (b). (See also State CEQA Guidelines, §§ 15091, subd. (a)(3), 15093.) Under these provisions, CEQA requires the CSLC to balance, as applicable, the economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the Lease approval related to the Project against the backdrop of the Project's unavoidable significant environmental impacts. For purposes of CEQA, if the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable significant environmental effects, those effects may be considered acceptable and the decision-making agency may approve the underlying project. (State CEQA Guidelines § 15092, subd. (b)(2)(B).) CEQA, in this respect, does not prohibit the CSLC from approving the Lease even if the Project activities as authorized under the Lease may cause significant and unavoidable environmental effects.

This Statement of Overriding Considerations presents a list of (1) the specific significant effects on the environment attributable to the approved Project that cannot feasibly be mitigated to below a level of significance, (2) benefits derived from the approved Project, and (3) specific reasons for approving the Project.

Although the District and CSLC have imposed mitigation measures to reduce impacts, impacts remain that are considered significant after application of all feasible mitigation. Significant impacts of the approved Project fall under one resource area: Growth Inducement and Secondary Effects of Growth (see Table 1). This impact is specifically identified and discussed in more detail in the CSLC's CEQA Findings and in the program EIR/EIS and Addendum. While the CSLC has required all feasible mitigation measures, this impact remains significant for purposes of adopting this Statement of Overriding Considerations.

Table 1 – Significant and Unavoidable Impacts Identified for the Approved Project

Impact	Impact Description
Air Quality	
Impact 5.1. Direct and Indirect Impacts on Growth	The North Bay Water Recycling Program, of which the Project is a part, would provide recycled water for urban, agricultural, and environmental uses, and as such, would contribute to the provision of adequate water supply to support a level of growth that is consistent with the amount planned and approved within the General Plans of the affected cities within Marin, Sonoma, and Napa Counties and the General Plans for Marin, Sonoma and Napa Counties. No appreciable growth in population or employment would occur as a direct result of construction or operation of the proposed facilities. However, development under the General Plans accommodated by the North Bay Water Recycling Program would result in secondary environmental effects, which include effects that would be significant and unavoidable.

B. ALTERNATIVES

As explained in *California Native Plant Society* v. *City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1000:

> *When it comes time to decide on project approval, the public agency's decisionmaking body evaluates whether the alternatives [analyzed in the EIR] are actually feasible…. At this final stage of project approval, the agency considers whether '[s]pecific economic, legal, social, technological, or other considerations…make infeasible the mitigation measures or alternatives identified in the environmental impact report.' Broader considerations of policy thus come into play when the decisionmaking body is considering actual feasibility than when the EIR preparer is assessing potential feasibility of the alternatives [citations omitted].*

The seven alternatives analyzed in the program EIR/EIS represent a reasonable range of potentially feasible alternatives that could reduce one or more significant impacts of the Project. These alternatives included:

1. No Project Alternative, assumes that the proposed project is not implemented, and reviews two scenarios: 1) consideration of existing conditions without the project, a "no build scenario"; and 2) consideration of "reasonably foreseeable" future conditions without the project. This second scenario is identical to the No Action Alternative, identified below.
2. No Action Alternative, provides a "future without the project" scenario to compare the impacts of the proposed Action Alternatives to the impacts of not approving the Project.
3. Alternative 1, Basic System, includes use of recycled water near each of the individual wastewater treatment plants (WWTPs);
4. Alternative 2, Partially Connected System, adds additional pipelines, pump stations and storage to partially connect the existing WWTPs; and
5. Alternative 3, Fully Connected System, provides a fully integrated recycled water distribution system connecting all four Member Agency WWTPs.

In addition to the above North Bay Water Recycling Program alternatives, the program EIR/EIS examined the following alternatives to the District's Project:

6. Importation of Water
    - Importation of Recycled Water
    - Importation of Potable Water
7. Desalination

As presented in the program EIR/EIS, the alternatives were described and compared with each other and with the proposed Project.

Under State CEQA Guidelines section 15126.6, subdivision (e)(2), if the No Project Alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. The Basic System (Alternative 1) was identified as the most environmentally, equitably, and financially sustainable alternative that will effectively fulfill the project objectives.

The District independently reviewed and considered the information on alternatives provided in the program EIR/EIS and in the record. The program EIR/EIS reflects the District's independent judgment as to alternatives. The District found that the Project provides the best balance between the Project goals and objectives and the Project's benefits. The remaining CEQA alternatives proposed and evaluated in the program EIR/EIS were rejected as being infeasible for reasons provided in the District's Findings Regarding Alternatives (Chapter 4 of Attachment D-1).

Based upon the objectives identified in the program EIR/EIS and the detailed mitigation measures imposed upon the Project, the CSLC has determined that the Project should be approved, subject to such mitigation measures (Exhibit C, Mitigation Monitoring Program), and that any remaining unmitigated environmental impacts attributable to the Project are outweighed by the following specific economic, fiscal, social, environmental, land use, and other overriding considerations.

C. BENEFICIAL IMPACTS OF THE PROJECT

State CEQA Guidelines section 15093, subdivision (a) requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

The CSLC has carefully considered the North Bay Water Recycling Program described in the program EIR/EIS and the unavoidable adverse environmental impacts associated with it and identified the following environmental, economic, legal, social, technological, and other benefits of the Phase 1 Implementation Plan - Novato North Service Area, and Novato Central Service Area projects:

1) Implementation of the Project would provide potable offset of urban and agricultural demands on potable supplies, including surface and groundwater supplies.
2) Implementation of the Project would reduce the amount of treated effluent discharged to North San Pablo Bay.
3) Implementation of the Project would be consistent with State and local policies regarding the implementation of recycled water to provide potable water supply offset.
4) Implementation of the Project would be consistent with recycled water polices identified in approved General Plans within the proposed service area.

5) Implementation of the Project would reduce peak demand for water in the summer months. Reducing peak demand will benefit other users of water in the summer months, including threatened and endangered species.
6) The Project will be implemented under the Bureau of Reclamation's Title XVI program, which provides funding for recycled water programs that have demonstrated regional coordination and provide multiple benefits.

The CSLC weighed the above benefits of the Project against its unavoidable environmental risks and the adverse environmental effects that are described in the program EIR/EIS and determined that the above benefits outweigh the risks and adverse effects. The CSLC has, therefore, determined that these risks and adverse environmental effects are acceptable.

D. CONCLUSION

The CSLC has considered the program EIR/EIS and Addendum and all of the environmental impacts described therein including those that cannot be mitigated to a less than significant level and those that may affect Public Trust uses of State sovereign lands. The CSLC has considered the fiscal, economic, legal, social, environmental, and public health and safety benefits of the Project and has balanced them against the Project's unavoidable and unmitigated adverse environmental impacts and, based upon substantial evidence in the record, has determined that the benefits of the Project outweigh the adverse environmental effects. Based on the foregoing and pursuant to Public Resources Code section 21081 and State CEQA Guidelines sections 15096 subdivision (h) and 15093, the CSLC finds that the remaining significant unavoidable impacts of the Project are acceptable in light of the economic, fiscal, social, environmental, and public health and safety benefits of the Project. Such benefits outweigh such significant and unavoidable impacts of the Project and provide the substantive and legal basis for this Statement of Overriding Considerations.

The CSLC finds that to the extent that any impacts identified in the program EIR/EIS and Addendum remain unmitigated, mitigation measures have been required to the extent feasible, although the impacts could not be reduced to a less than significant level.

Based on the above discussion, the CSLC finds that the benefits of the Project outweigh the significant unavoidable impacts that could remain after mitigation is applied and considers such impacts acceptable.

ATTACHMENT D-1

North Marin Water District
Findings of Fact Regarding Impacts and Statement of Overriding Considerations

CHAPTER 3
Findings of Fact Regarding Impacts

3.1 Significant Unavoidable Adverse Impacts

The Draft EIR/EIS described that direct significant impacts attributable to the NBWRP can either be avoided through project design or if unavoidable, can be reduced to a less-than-significant level through mitigation measures identified in the Draft EIR/EIS. Indirect, or secondary, impacts related to growth under the adopted General Plans within the project area may remain significant, and unavoidable for specific issue areas.

Chapter 5 Growth

Impact 5.1 Secondary Effects of Growth

Impact 5.1: The NBWRP would provide recycled water for urban, agricultural, and environmental uses, and as such, would contribute to the provision of adequate water supply to support a level of growth that is consistent with the amount planned and approved within the General Plans of the affected cities within Marin, Sonoma, and Napa Counties and the General Plans for Marin, Sonoma and Napa Counties. No appreciable growth in population or employment would occur as a direct result of construction or operation of the proposed facilities. However, development under the General Plans accommodated by the proposed project would result in secondary environmental effects, which include effects that would be significant and unavoidable.

Mitigation Not Applicable to NMWD.

Mitigation Applicable to Napa County and Napa SD.

Mitigation Not Applicable to LGVSD, Novato SD, and SVCSD.

The following mitigation measure was identified for projects occurring in Napa County.

> **Mitigation Measure 5.1a:** In order to maintain consistency with the Napa County General Plan, Napa County and Napa SD will approve the MST Local Options 1 and/or 2. This will provide approximately 530 AFY of recycled water that would be available for the existing users in the MST area. Trunk facilities may-accommodate service of up to 1,400 AFY to existing agricultural irrigators only. Any expansion of service beyond the 1,400 AFY or provision of service to new land uses would be subject to approval by the County Planning Department and the Napa County Board of Supervisors.

Findings

Based on the Final EIR/EIS and the entire record before the NMWD Board, including the County and City environmental documents referenced in the Draft EIR/EIS, the Board finds that the provision of recycled water within its service area under the NBWRP, while consistent with water supply planning within the service areas, would enable growth under the approved General Plans within each service area to occur, and as such, would contribute to secondary effects of growth associated with buildout under approved General Plans. Some of these secondary effects of growth may remain significant and unavoidable within the NMWD service area. The Board finds, in accordance with CEQA Section 15091(a)(3), that specific economic, legal, social, technological, or other considerations, including provisions of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the EIR/EIS (See also Section 6). These findings are consistent with previous findings made by decision making bodies with jurisdiction over these General Plans.

With respect to Mitigation Measure 5.1a, based on the Final EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(2) that 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.

Rationale

As discussed in the Draft EIR/EIS, no appreciable growth in population or employment would occur as a direct result of the proposed project. However, provision of recycled water supply would assist in the provision of adequate water supplies to support planned development under the approved General Plans within the City of Novato and Marin County. Buildout under the General Plans would include secondary effects to the environment, as identified in the City of Novato General Plan EIR and the Marin County General Plan EIR, and summarized in the Draft EIR/EIS. The environmental effects of growth most commonly identified as significant and unavoidable in the service area include those identified in the City of Novato General Plan: displacement of wetlands, operation of highways at unacceptable levels of service, and increased emergency service demand and impacts to emergency service response time. The environmental effects of growth identified as significant and unavoidable identified in the Marin County General Plan include conflicts with agricultural land use or other existing land uses, consistency with air quality regulations, permanent loss of sensitive species or habitat, alteration of drainage patterns, impacts to water supply and water quality within unincorporated Marin County. These effects are described in Chapter 5, Growth Inducing Effects and Secondary Effects of Growth, of the Draft EIR/EIS. The project provides a level of recycled water supply consistent with the assumptions of the approved *City of Novato General Plan* and *Marin County General Plan*. As noted in these General Plans, some of these impacts will be reduced by identified mitigation measures, but the impacts may not be reduced to a less than significant level.

Implementation of **Mitigation Measure 5.1a**, is applicable to implementation of the MST Area Project under the Phase I Implementation Plan. This project is under the jurisdiction of Napa County.

3.2 Significant Adverse Impacts Reduced to Less-than-Significant Level by Mitigation Measures Incorporated

The Draft EIR/EIS identifies significant impacts that would be reduced to a less-than-significant level by the inclusion of the mitigation measures identified in the Draft EIR/EIS for the approval of NBWRP.

Section 3.1 Geology and Seismicity

Impact 3.1.1 Seismicity

Impact 3.1.1: In the event of a major earthquake in the Bay Area Region, the proposed facilities could be subject to fault rupture, severe ground shaking, liquefaction, or earthquake induced landslides capable of causing injury, structural damage, pipeline rupture and service interruption.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the Mitigation Monitoring and Reporting Program (MMRP). This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.1.1: The Member Agencies will implement the following measures:

- All proposed improvements will be designed and constructed in accordance with current geotechnical industry standard criteria, including the California Building Code (CBC) and American Waterworks Association (AWWA) criteria.

- The project construction materials and backfill materials will be designed according to a geotechnical investigation by a California-licensed geotechnical engineer or engineering geologist to address landslide, subsidence, liquefaction, and expansive soils and seismic hazards such as ground shaking and liquefaction.

- Implementation of industry standard geotechnical measures such as replacing excavated soils with engineered fill materials are effective means to overcome the potential for subsidence. If excavated soils are to be reused for backfill, they would still be appropriately compacted to mitigate the potential for subsidence or settlement and evaluated for expansion and amended, if necessary, to reduce the potential for expansion in accordance with accepted geotechnical practices.

- Proposed facilities will be designed to include flexible connections, where deemed necessary, along with backfill requirements that minimize the potential for significant damage. All other associated improvements will employ standard design and

construction using the most recent geotechnical practices and California Building Code (CBC) seismic criteria, which would provide conservative design criteria.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Incorporation of seismic criteria as it applies to the design of the project components including the WWTP improvements and the recycled water conveyance system would comply with the CBC. Implementation of standard geotechnical measures would mitigate the potential of geological hazards.

Impact 3.1.2 Erosion

Impact 3.1.2: Project construction activities could result in short-term erosion and loss of topsoils.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.1.2: The Member Agencies will implement the following measures:

- Consistent with Stormwater Pollution Prevention Plan (SWPPP) requirements, the construction contractor shall be required to implement BMPs for erosion control onsite. The use of construction BMPs will minimize the potential for erosion and loss of topsoil, and shall include, without limitation, the following:
  - Avoid scheduling construction activities during a rain event, but be prepared for sudden changes in conditions;
  - Construct berms, silt fences, straw bales, fiber rolls, and/or sand bags around stockpiled soils;
  - Cover stockpiled soils during a rain event and monitor perimeter barriers, repair as necessary;
  - Stabilize entrances to work area to prevent tracking of dirt or mud onto roadways; and
- Implement dust control practices as appropriate on all stockpiled material.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Implementation of BMPs would include soil erosion and stormwater runoff control measures and would minimize impacts erosion and loss of topsoil.

Impact 3.1.3 Unstable Soils

Impact 3.1.3: Project improvements could be located on a geologic unit or soil that is unstable that could potentially result in landslide, lateral spreading, subsidence, liquefaction or collapse causing damage to structures and service disruptions.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.1.1: The Member Agencies will implement the following measures:

- All proposed improvements will be designed and constructed in accordance with current geotechnical industry standard criteria, including the California Building Code (CBC) and American Waterworks Association (AWWA) criteria.

- The project construction materials and backfill materials will be designed according to a geotechnical investigation by a California-licensed geotechnical engineer or engineering geologist to address landslide, subsidence, liquefaction, and expansive soils and seismic hazards such as ground shaking and liquefaction.

- Implementation of industry standard geotechnical measures such as replacing excavated soils with engineered fill materials are effective means to overcome the potential for subsidence. If excavated soils are to be reused for backfill, they would still be appropriately compacted to mitigate the potential for subsidence or settlement and evaluated for expansion and amended, if necessary, to reduce the potential for expansion in accordance with accepted geotechnical practices.

- Proposed facilities will be designed to include flexible connections, where deemed necessary, along with backfill requirements that minimize the potential for significant damage. All other associated improvements will employ standard design and construction using the most recent geotechnical practices and California Building Code (CBC) seismic criteria, which would provide conservative design criteria.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Incorporation of industry standards and materials selection as it applies to the design of the WWTP improvement components and the recycled water conveyance system would comply with AWWA and CBC and would minimize the impact associated with unstable soils.

Impact 3.1.4 Expansive Soils

Impact 3.1.4: Project improvements could be located on expansive soils that over time could cause damage to foundations and pipelines resulting in service disruptions.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.1.1: The Member Agencies will implement the following measures:

- All proposed improvements will be designed and constructed in accordance with current geotechnical industry standard criteria, including the California Building Code (CBC) and American Waterworks Association (AWWA) criteria.
- The project construction materials and backfill materials will be designed according to a geotechnical investigation by a California-licensed geotechnical engineer or engineering geologist to address landslide, subsidence, liquefaction, and expansive soils and seismic hazards such as ground shaking and liquefaction.
- Implementation of industry standard geotechnical measures such as replacing excavated soils with engineered fill materials are effective means to overcome the potential for subsidence. If excavated soils are to be reused for backfill, they would still be appropriately compacted to mitigate the potential for subsidence or settlement and evaluated for expansion and amended, if necessary, to reduce the potential for expansion in accordance with accepted geotechnical practices.
- Proposed facilities will be designed to include flexible connections, where deemed necessary, along with backfill requirements that minimize the potential for significant damage. All other associated improvements will employ standard design and construction using the most recent geotechnical practices and California Building Code (CBC) seismic criteria, which would provide conservative design criteria.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Incorporation of industry standards and materials selection as it applies to the design of the WWTP improvement components and the recycled water conveyance system would comply with AWWA and CBC and would reduce the impact related to expansive soils.

Section 3.2 Surface Hydrology

Impact 3.2.1 Changes in Drainage Patterns

Impact 3.2.1: Project construction could modify existing drainage patterns.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.2.1:** The Member Agencies would implement the following measure during pipeline installation at stream crossings:
>
> - Schedule construction so as to avoid storm events to the extent feasible ;
> - Use trenchless techniques such as jack and bore tunneling to avoid direct impacts to the streams;
> - Employ short-term drainage diversion and control measures such as sandbags, dikes, pumps, or other means; and
> - Following construction, restore the construction area to pre-existing conditions
> - Implement **Mitigation Measure 3.5.1** (see Section 3.5).

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

As discussed in the Draft EIR/EIS, the proposed pipelines would cross drainages only under certain necessary conditions. In such cases, the measures listed above would avoid direct impact to drainages. The drainage designs would be integrated with existing drainage systems, and the construction site would be restored to pre-existing conditions, therefore, the impact on the drainage patterns would be less than significant.

Impact 3.2.3 Increased storm runoff

Impact 3.2.3: New impervious surfaces for the NBWRP would result in an increase in storm runoff.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.2.3: The Member Agencies will implement the following measures:

- Comply with the local storm drainage requirements;
- Incorporate site design features to control any site runoff onsite; and
- Install storm runoff, collection, and treatment system, as applicable, to control the runoff flow offsite.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

New impervious surfaces would be added as part of the pump stations located offsite from the WWTPs; however the increase would be minor and compliance with local storm drain requirements and site design features would control runoff flow onsite.

Impact 3.2.4 Flooding – Sea Level Rise Impact

Impact 3.2.4: Sea-level rise could affect operation of project facilities.

Mitigation Applicable to NMWD

Mitigation Applicable to LGVSD, Novato SD, and SVCSD.

Not Applicable to Napa County and Napa SD.

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.2.4:** Design of proposed facilities shall consider sea level rise potential, and shall include appropriate measures in facility siting and design to address potential impacts related to sea level rise, similar to those applied to facility installation within 100-year flood plains. Design measures may include, but are not limited to: facility siting, access placement, access vault extension above projected water elevation, water tight vaults, and site protection.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Implementation of design measures, such as siting, access placement, access vault extension above projected water elevation, water tight vaults, and site protection would reduce the impact related to sea-level rise.

Section 3.3 Groundwater Resources

Impact 3.3.2 Hydrostatic Pressure

Impact 3.3.2: Proposed facilities may be affected by shallow groundwater levels and natural groundwater fluctuations.

Mitigation

Mitigation Measure 3.3.1: The Member Agencies will implement the following measures:

- All proposed improvements will be designed and constructed in accordance with current geotechnical industry standard criteria.
- Implement industry standard geotechnical measures to address high groundwater conditions as appropriate to reduce the potential for impacts related to groundwater fluctuation, in accordance with accepted geotechnical practices. Possible design features include drainage blankets, perimeter pumps to temporarily decrease

hydrostatic pressure, perimeter drainage trenches, and specific groundwater monitoring scenarios.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Proposed facilities, including pipelines, pump stations, and storage facilities would be constructed in accordance with the geotechnical standards and criteria. The design measures would reduce the impacts related to groundwater fluctuation.

Section 3.4 Water Quality

Impact 3.4.1 Construction-Related Effects

Impact 3.4.1: Disturbance of soils during construction of new project-related infrastructure could generate short term erosion-related water quality impacts. Construction activities could result in the accidental release of fuels or hazardous materials. Project construction activities could require dewatering that could result in the discharge of turbid waters into the local storm drain systems or nearby creeks.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. These measures will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.4.1a: NPDES Construction Activity Stormwater Permit. Member Agencies or their contractor shall comply with the provisions of the NPDES Construction Activity Stormwater permit, including preparation of Notice of Intent to comply with the provisions of this General Permit and preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will identify implementation measures necessary to mitigate potential water quality degradation as a result of construction-related runoff. These measures will include BMPs and other standard pollution prevention actions, such as erosion and sediment control measures, proper control of non-stormwater discharges, and hazardous spill prevention and response. The SWPPP will also include requirements for BMP inspections, monitoring, and maintenance.

The following items are examples of BMPs that would be implemented during construction to avoid causing water quality degradation:

- Erosion control BMPs, such as use of mulches or hydroseeding to prevent detachment of soil, following guidance presented in the California BMP Handbooks – Construction (CASQA 2003). A detailed site map will be included in the SWPPP

outlining specific areas where soil disturbance may occur, and drainage patterns associated with excavation and grading activities. In addition, the SWPPP will provide plans and details for the BMPs to be implemented prior, during, and after construction to prevent erosion of exposed soils and to treat sediments before they are transported offsite.

- Sediment control BMPs such as silt fencing or detention basins that trap soil particles.
- Construction staging areas designed so that stormwater runoff during construction will be collected and treated in a detention basin or other appropriate structure.
- Management of hazardous materials and wastes to prevent spills.
- Groundwater treatment BMPs such that localized trench dewatering does not impact surface water quality.
- Vehicle and equipment fueling BMPs such that these activities occur only in designated staging areas with appropriate spill controls.
- Maintenance checks of equipment and vehicles to prevent spills or leaks of liquids of any kind.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Implementation of stormwater control measures and BMPs related to handling and storage of hazardous materials would minimize sedimentation and water quality impacts.

Impact 3.4.6 Surface Water Storage

Impact 3.4.6: The proposed project would include storage of recycled water at existing WWTP facilities, as well as at individual user properties. Storage of recycled water quality would have the potential to affect localized surface water quality or groundwater quality.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. These measures will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.4.6a: Under the Master Recycling Permit for each Member Agency and Cooperating Agency, user agreements shall include provisions for compliance with

Title 22 and the State Recycled Water Policy regarding storage and use of recycled water onsite at individual properties.

Mitigation Measure 3.4.6b: Prior to storage of recycled water in any "on-stream" storage facility that directly receives and releases stream flow, each Member Agency or Cooperating Agency shall enter into discussions with RWQCB regarding operational requirements to ensure operation of proposed facilities in compliance with Title 22 and the State Recycled Water Policy. It is anticipated that specific operational standards, such as pumping on-stream ponds dry prior to the onset of winter rains or other measures, would be required in order to ensure storage in compliance with Title 22.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

The project would comply with Title 22 and maintain adequate freeboard to reduce the potential for releases of stored recycled water.

Impact 3.4.9 Reuse for Habitat Restoration

Impact 3.4.9: Disinfected tertiary-treated wastewater from the SVCSD and Napa SD WWTPs would be delivered to the Napa Salt Marsh ponds as a dilution source for bittern ponds, thereby improving water quality.

Mitigation Not Applicable to NMWD.

Mitigation Not Applicable to Napa County, LGVSD, Novato SD.

Mitigation Applicable to SVCSD and Napa SD.

Mitigation Measure 3.4.9a: SVCSD and Napa SD (as appropriate) shall implement the following measures:

- Prepare a Management Plan for the salt marsh ponds to monitor recycled water application and resulting changes in bittern pond conditions. The management plan will include the following features for Ponds 7 and 7A:

    a) Facility Plan, includes project purpose and objectives, site selection factors, site sampling and analyses, planning and design elements.

    b) Operations and Maintenance plan, includes vegetation planning and harvesting, channel and bank maintenance, pump and gate maintenance, vector controls, and contingency/emergency plans.

c) Monitoring Program, includes monitoring of pollutants, habitat diversity, wildlife use, and vector populations.

Findings

Based on the Final EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(2), that 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.

Rationale

NMWD would not be implementing this component of the project under the Phase 1 Implementation Plan currently under consideration.

Section 3.5 Biological Resources

Impact 3.5.1 Impacts on Wetlands, Streams and Riparian Habitats

Impact 3.5.1: Construction of the Proposed Project could result in impacts to jurisdictional wetlands and other waters of the United States, as well as impacts to riparian habitat.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.5.1: Implement the following measures to avoid, minimize and compensate for impacts to jurisdictional wetlands and other waters of the U.S. and impacts to riparian habitat.

Construction activities resulting in the introduction of fill or other disturbance to jurisdictional wetlands and other waters of the U.S. will require permit approval from the U.S. Army Corps of Engineers and water quality certification from the Regional Water Quality Control Board, pursuant to Section 401 of the Clean Water Act. The Proposed Project will most likely be authorized under Nationwide Permit #12 (Utility Lines) pursuant to Section 404 of the Clean Water Act. The California Department of Fish and Game (CDFG) has jurisdiction in the action area over riparian habitat, including stream bed and banks, pursuant to Sections 1600-1616 of the Fish and Game Code. Pipeline construction resulting in alteration to channel bed or banks, extending to the outer dripline of trees forming the riparian corridor, is subject to CDFG jurisdiction. The project proponent will be required to obtain a Streambed Alteration Agreement (SAA) from the CDFG. Terms of these permits and SAA will likely include, but will not necessarily be limited to, the mitigation measures listed below.

1) Specific locations of pipeline segments, storage reservoirs, and pump stations shall be configured, wherever feasible, to avoid and minimize direct and indirect impacts to

wetlands and stream drainage channels. Consideration taken in finalizing configuration placement shall include:

- Reducing number and area of stream channel and wetland crossings where feasible. Crossings shall be oriented as close to perpendicular (90 degree angle) to the drainage or wetland as feasible.

- Placement of project components as distant as feasible from channels and wetlands.

- For pipeline construction activities in the vicinity of wetland and stream drainage areas, the construction work area boundaries shall have a minimum 20-foot setback from jurisdictional features[1]. Pipeline construction activities in proximity to jurisdictional features include: 1) entrance and exit pits for directional drilling and bore and jack operations; and 2) portions of pipeline segments listed as "parallel" to wetland/water features.

2) Sites identified as potential staging areas will be examined by a qualified biologist prior to construction. If potentially jurisdictional features are found that could be impacted by staging activities, the site will not be used.

3) Construction methods for channel crossing shall be designed to avoid and minimize direct and indirect impacts to channels to the greatest extent feasible. Use of trenchless methods including suspension of pipeline from existing bridges, directional drilling, and bore and jack tunneling will be used when feasible. Trenchless methods are required for all perennial drainage crossings (i.e., Sonoma Creek). Construction occurring in the vicinity of riparian areas shall be delimited with a minimum 20-foot setback to avoid intrusion of construction activities into sensitive habitat.

   The following additional measures shall apply to channel crossings in which the trenching construction method is used:

   - Limiting of construction activities in drainage channel crossings to low-flow periods: approximately April 15 to October 15.

   - At in-road drainage crossings where drainages pass beneath the road in existing culverts, and where there is sufficient cover between the culvert and road surface, the new pipeline will be installed above the existing culvert without removing or disturbing it. If the pipeline must be installed below the existing culvert, then the culvert will be cut and temporarily removed to allow pipeline installation.

   - At off-road drainage crossings, the construction corridor width will be minimized to the greatest extent feasible at the crossing and at least 20 additional feet to either side of the drainage at the crossing.

   - If disturbance of the existing culvert is required, sediment curtains upstream and downstream of the construction zone shall be placed to prevent sediment

[1] Setbacks of channels with associated riparian vegetation will be from the outer dripline edge of the riparian corridor canopies and/or the upper bank edge, or per City or County code, whichever is greater.

disturbed during trenching activities from being transported and deposited outside of the construction zone.

4) Implement BMPs required in Mitigation Measure 3.4.1 to reduce risk of sediment transport into all construction areas in proximity of drainages.

5) For channels or wetlands for which soil removal is necessary (off-road crossings or wetlands to be trenched or otherwise directly disturbed), the top layer of the drainage or wetland bottom shall be stockpiled and preserved during construction. After the pipeline has been installed, the stockpiled material shall be placed back into the drainage or wetland feature to return the beds to approximately their original composition.

6) To offset temporary and permanent impacts to wetlands and other waters of the U.S., and impacts to riparian habitat, compensatory mitigation will be provided as required by regulatory permits and SAAs.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Potential impacts to riparian habitat during construction activities would be reduced by complying with the regulatory requirements and through measures such as avoiding stream crossings as feasible and setting setbacks from sensitive habitats.

Impact 3.5.2 Construction Impacts on Special-status Fish and California Freshwater Shrimp

Impact 3.5.2: Construction of Proposed Project facilities could affect special-status invertebrate or fish species including central California coast steelhead, Chinook salmon, California freshwater shrimp, Pacific lamprey, and Sacramento splittail, or designated critical habitat for steelhead.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.5.2: Specific measures shall be implemented to protect aquatic habitats potentially inhabited by special-status fish and California freshwater shrimp.

Sensitive fisheries and other aquatic resources shall be protected by minimizing in-stream and near-stream habitat impacts during project design, informally consulting with resource agencies (NMFS, USFWS, CDFG, and USACOE), and implementing protective measures. For Sonoma Creek, Petaluma River, Napa River, and other perennial drainages, special-

status fish are presumed present. California freshwater shrimp are presumed present in Sonoma Creek. Because of the sensitivity of seasonal and ephemeral drainages, the following measures will be required to avoid and minimize impacts to aquatic habitat:

1) Project designs shall be reconfigured, whenever feasible, to avoid direct impacts to sensitive wetland areas and minimize disturbances to wetland and riparian corridors. Ground disturbance and construction footprints in these areas shall be minimized to the greatest degree feasible.

2) If trenching or directional boring stream crossing methods are used, the construction schedule of such activities shall be implemented according to conditions of the SAAs.

3) In-stream construction shall be avoided at all locations that are known, or presumed, to support threatened or endangered species, if at the time of construction such locations contain flowing or standing water.

4) In the event that equipment shall operate in any watercourse with flowing or standing water, the project proponent will ensure that they have the appropriate permit authorizations.

5) Prior to construction, a qualified biologist shall install fencing to establish a minimum 20-foot setback from sensitive habitat.

6) For work sites located adjacent to sensitive aquatic sites, a biological resource education program shall be provided by a qualified biologist, as per conditions of the SAAs.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

The project would be designed to avoid sensitive wetland areas and measures such as educating the construction workers would minimize the impacts to special-status species.

Impact 3.5.4 Impacts on Special-status Invertebrates

Impact 3.5.4: Construction of Proposed Project facilities could impact special-status invertebrates including Myrtle's silverspot butterfly, Opler's longhorn moth, Monarch butterfly wintering sites, Ricksecker's water scavenger beetle and California brackish water snail.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.3**: Implementation of Mitigation Measure 3.5.5 for the protection of California red-legged frogs and Mitigation Measure 3.5.1 for protection and restoration of wetlands would protect special-status invertebrates that could potentially be impacted by the project. No specific mitigation is required.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Implementation of measures to protect the California red-legged frog and wetlands would also minimize impacts to special-status invertebrates.

Impact 3.5.5 Impacts on Western Pond Turtle

Impact 3.5.5: Construction of the proposed project has the potential to impact western pond turtles in upland and aquatic habitat.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.5:** The appropriate Member Agency shall implement protection measures to avoid and minimize impacts to western pond turtles.
>
> - When working within 200 feet of stream crossings, all construction personnel shall receive awareness training relating to the protection of western pond turtles, in accordance with the SAAs. Also, to minimize the likelihood of encountering turtles in upland areas near stream crossings, construction footprints shall be minimized to the greatest extent feasible. Based on reconnaissance-level surveys, if staging and construction activities occur principally within or immediately adjacent to project alignment roads the project will be outside of principal pond turtle habitat.
>
> - Within 48 hours prior to the start of construction activities, a qualified biologist shall perform pond turtle surveys within suitable habitat within projected work areas. If a pond turtle nest is located within a work area, a biologist with the appropriate permits may move the eggs to a suitable facility for incubation, and release hatchlings into the creek system in late fall.

The measures proposed for protection of aquatic species and red-legged frogs (Mitigation Measures 3.5.2 and 3.5.6) will additionally protect western pond turtles during construction.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as conducting surveys for pond turtles prior to construction and establishing working areas at a specified distance from the stream crossings would minimize the impact.

Impact 3.5.6 Impacts on California Red-legged Frog

Impact 3.5.6: Construction of the Proposed Project has the potential to affect California red-legged frogs, if present.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.5.6: The appropriate Member Agency shall implement the following protection measures to avoid and minimize impacts on California red-legged frog.

1) The implementation of measures identified for the protection of special-status fish and California freshwater shrimp would also protect California red-legged frogs within aquatic habitat. All protection measures identified in Mitigation Measure 3.5.2 shall be applied to the protection of red-legged frogs at sites that provide potential aquatic habitat for this species. These include informal USFWS consultation, avoiding aquatic habitat, establishing a suitable buffer from the aquatic habitat (e.g., 50 feet), and implementing a worker education program.

2) All work activities within or adjacent to aquatic habitat that is potentially occupied by red-legged frogs will be completed between May 1 and November 1.

3) A qualified biological resource monitor will conduct a training session for construction personnel working in upland habitat near potentially occupied drainages, as per conditions of the SAAs.

4) All trash that could attract predators will be regularly contained and removed from the work site.

In the event trenchless methods cannot be employed, the project proponent would obtain appropriate permit authorizations and implement construction methods per applicable Streambed Alteration Agreements.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures for protecting special-status fish and freshwater shrimp would apply to the protection of California red-legged frog. Mitigation including informal USFWS consultation, avoiding aquatic habitat, and establishing a suitable buffer would minimize the impact.

Impact 3.5.7 Impacts on Threatened and Endangered Marsh Birds

Impact 3.5.7: Construction of the proposed project has the potential to affect western snowy plover, California black rail and California clapper rail and their habitat in and near the project alignments.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.5.7: Impacts to Threatened and Endangered Marsh Birds. To minimize the likelihood of project effects on threatened and endangered marsh birds, the following reasonable and prudent measures would be implemented by the appropriate Member Agency:

- Protocol-level surveys will be conducted in locations with suitable habitat to determine species presence or absence.
- Agency consultation will be initiated.
- Construction activities will occur during the non-breeding season, September 15 through January 31. The combined breeding season for all three species extends from February 1 through September 14.
- Construction personnel will receive environmental awareness training specific to the identification of clapper rails, black rails, western snowy plover and their habitat.
- Any clapper rail and western snowy plover activity will be immediately reported to the USFWS; black rail activity will be reported to the CDFG.

- Construction activities will be constrained to the smallest area possible to minimize marsh disturbance.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as conducting surveys for threatened and endangered marsh birds prior to construction and restricting construction activities to non-breeding season would minimize the impact.

Impact 3.5.8 Impacts on Burrowing Owl

Impact 3.5.8: Construction of the proposed project could result in direct and indirect impacts to burrowing owls, if present in portions of the project alignment. (Less than Significant with Mitigation)

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.8:** The following measures to avoid, minimize, or mitigate impacts on burrowing owls would be incorporated into the project by the appropriate Member Agency:
>
> - In areas identified to provide potential burrowing owl habitat, preconstruction surveys for burrowing owls would be conducted by a qualified biologist 14-30 days prior to the start of construction. Surveys would cover grassland areas within 500-foot buffer and check for adult and juvenile burrowing owls and their habitat.
>
> - Construction exclusion areas would be established around the occupied burrows in which no disturbance would be allowed to occur. During the non-breeding season (September 1 through January 31), the exclusion zone would extend 160 feet around occupied burrows. During the breeding season (February 1 through August 31), exclusion areas would extend 250 feet around occupied burrows. Passive relocation of owls is not proposed.
>
> - A qualified biologist (the on-site monitor or otherwise) will monitor owl activity on the site to ensure the species is not adversely affected by the project.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as conducting surveys for burrowing owl prior to construction and restricting construction activities to non-breeding season would minimize the impact.

Impact 3.5.9 Impacts on Nesting Birds

Impact 3.5.9: Construction of the proposed project has the potential to affect nesting birds including Swainson's hawk, willow flycatcher, sharp-shinned hawk, Cooper's hawk, tri-colored blackbird, Bell's sage sparrow, golden eagle, northern harrier, California yellow-warbler, white-tailed kite, California horned lark, salt marsh common yellowthroat, loggerhead shrike, San Pablo song sparrow, California thrasher, rookeries, and additional bird species protected by California Fish and Game Code Section 3503 and the federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989). (Less than Significant with Mitigation)

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.9:** To avoid disturbing common and special-status nesting birds, the following protection measures shall be implemented:
>
> - Whenever feasible, vegetation shall be removed during the non-breeding season (generally defined as September 1 to January 31).
>
> - For ground disturbing activities occurring during the breeding season (generally defined as February 1 to August 31), a qualified wildlife biologist will conduct preconstruction surveys of all potential nesting habitat for birds within 500 feet of earthmoving activities.
>
> - If active bird nests are found during preconstruction surveys, a 500-foot no-disturbance buffer will be created around active raptor nests during the breeding season or until it is determined that all young have fledged. A 250-foot buffer zone will be created around the nests of other special-status birds. These buffer zones are consistent with CDFG avoidance guidelines; however, they may be modified in coordination with CDFG based on existing conditions at work locations.
>
> - If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation is required. Trees and shrubs that have been determined to be unoccupied by special-status birds or that are located at least 500 feet from active nests may be removed.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as conducting surveys for nesting birds prior to construction and restricting construction activities to non-breeding season would minimize the impact.

Impact 3.5.10 Impacts on Salt Marsh Harvest Mouse and Suisun Ornate Shrew

Impact 3.5.10: Construction of the proposed project has the potential to affect salt marsh harvest mouse and suisun ornate shrew and their habitat in and near the project alignments.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.10:** The appropriate Member Agency shall implement protection measures to avoid and minimize impacts on salt marsh mammals during construction.
>
> Where avoidance of sensitive habitat is not feasible (e.g., by bridging or bore and jack), consultation with CDFG and/or USFWS would be initiated. If species are present or presumed to be present after informal consultation with USFWS and/or CDFG, then a formal consultation and Biological Assessment in support of a Biological Opinion would be required. Such a consultation would proceed as part of the Corps 404 permitting program.
>
> To avoid potential impacts on salt marsh harvest mouse and Suisun ornate shrew, a qualified biologist shall conduct specific preconstruction surveys prior to project initiation, following USFWS survey guidelines. The project proponent shall install exclusionary fences to prevent species movement into the action area, and a biologist with the appropriate permits to relocate these species shall live-trap mice and shrews within the enclosure and move these animals outside the fence. The biological monitor shall inspect these fences to ensure their integrity, and shall conduct an education workshop for contractors employees outlining species' biology, legislative protection, and construction restrictions to reduce potential impacts.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated

into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as conducting surveys for salt harvest mouse and Suisun ornate shrew prior to construction and restricting construction activities to non-breeding season would minimize the impact.

Impact 3.5.11 Impacts on Special Status Bats

Impact 3.5.11: Construction of the proposed project has the potential to affect roosting or breeding special-status bats in and near the project alignments.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.11:** The appropriate Member Agency shall implement protection measures to avoid and minimize impacts on special-status bats in and near project facilities during construction.
>
> Concurrent with breeding bird surveys (Mitigation Measure 3.5.8), a qualified biologist will conduct preconstruction surveys for special-status bats at each bridge crossing location and in rural (i.e., non-road) areas where any large trees (e.g., > 24 inch diameter at breast height) will be removed. If an active roost is observed, a suitably-sized buffer (e.g., 100 to 150 feet) will be placed around the roost if it appears that trenching or other project activities may cause abandonment. Demolition activities must cease until juvenile bats are self-sufficient and will not be directly or indirectly impacted by activities.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as conducting pre-construction surveys for special-status bats and avoiding or maintaining a suitable buffer from an active roost would minimize the impact.

Impact 3.5.12 Impacts on American Badger

Impact 3.5.12: Construction of the proposed project has the potential to affect American badger and its habitat in and near the project alignments.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.12:** To avoid and minimize impacts on badgers, the appropriate Member Agency shall implement preconstruction surveys prior to ground clearing and grading in annual grasslands habitat or areas that are known or suspected to support badger.
>
> - Within 30-days prior to ground-clearing, a qualified biologist shall survey areas that provide potential badger habitat that occur within 100-feet of project activities. If no evidence of badgers presence is detected, no further mitigation is required. If active badger dens are identified within the action area, badgers will be passively relocated. If identified, vacated dens shall be temporarily covered using plywood sheets or similar materials to prevent badgers from returning to the action area during construction.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as conducting pre-construction surveys for American badger and temporary covers on vacated dens would avoid or minimize the impact.

Impact 3.5.13 Impacts on Rare Plants

Impact 3.5.13: Project construction could result in impacts to listed and other special-status plants.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.13.** Before the initiation of any vegetation removal or ground-disturbing activities in areas that provide suitable habitat for special-status plants, the following measures shall be implemented by the appropriate Member Agency:
>
> - A qualified botanist will conduct appropriately-timed surveys for special-status plant species, including those identified in Table 3.5.1, in all suitable habitat that would be potentially disturbed by the project.
>
> - Surveys shall be conducted following CDFG- or other approved protocol.

- If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter to the appropriate agencies and no further mitigation will be required.

  If special-status plants are found during focused surveys, the following measures shall be implemented:

  - Information regarding the special-status plant population shall be reported to the California Natural Diversity Database (CNDDB).

  - If the populations can be avoided during project implementation, they shall be clearly marked in the field by a qualified botanist and avoided during construction activities. Before ground clearing or ground disturbance, all on-site construction personnel shall be instructed as to the species' presence and the importance of avoiding impacts to this species and its habitat.

  - If special-status plant populations cannot be avoided, consultations with CDFG and/or USFWS would be required. A plan to compensate for the loss of special-status plant species could be required, detailing appropriate replacement ratios, methods for implementation, success criteria, monitoring and reporting protocols, and contingency measures that would be implemented if the initial mitigation fails; the plan would be developed in consultation with the appropriate agencies prior to the start of local construction activities.

  - If mitigation is required, the project proponent shall maintain and monitor the mitigation area for 5 years following the completion of construction and restoration activities. Monitoring reports shall be submitted to the resource agencies at the completion of restoration and for 5 years following restoration implementation. Monitoring reports shall include photo-documentation, planting specifications, a site layout map, descriptions of materials used, and justification for any deviations from the mitigation plan.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as conducting surveys of vegetation and consultation with USFWS and CDFG as required, would minimize the impact.

Impact 3.5.14 Impacts on Heritage and Significant Trees

Impact 3.5.14: The proposed project could affect heritage and other significant trees.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.5.14:** The following measures shall be implemented by the appropriate Member Agency to avoid or reduce impacts to heritage or other significant trees:
>
> 1. Prior to the commencement of construction activities, trees necessary to remove or at risk of being damaged will be identified.
>
> 2. A certified arborist will inventory these trees, with the results of the inventory providing species, size (diameter at breast height, or *dbh*), and number of protected trees. Also, in consultation with the appropriate County, the arborist will determine if any are heritage or landmark trees.
>
> 3. If any protected trees are identified that will be potentially removed or damaged by construction of the proposed project, design changes will be implemented where feasible to avoid the impact.
>
> 4. Any protected trees that are removed will be replaced per applicable City and County tree protection ordinances. Foliage protectors (cages and tree shelters) will be installed to protect the planted trees from wildlife browse. The planted trees will be monitored as required by the ordinance, or regularly during a minimum two-year establishment period and maintenance during the plant establishment period will include irrigation. After the establishment period, the native tree plantings are typically capable of survival and growth without supplemental irrigation.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as avoiding protected trees and replacing any removing trees as per the local tree protection ordinances would minimize the impact to heritage and significant trees.

Section 3.6 Land Use

Impact 3.6.3 Impact to Farmland

Impact 3.6.3: Construction activities associated with the project could temporarily affect the agricultural use of important farmland.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.6.1:** To support the continued productive use of Important Farmlands in the action area, the appropriate Member Agency shall implement the following measures during project construction:

- Replace soils over pipelines in a manner that will minimize any negative impacts on crop productivity. The surface and subsurface soil layers will be stockpiled separately and returned to their appropriate locations in the soil profile.
- To avoid over-compaction of the top layers of soil, monitor pre-construction soil densities and return the surface soil (approximately the top 3 feet) to within 5 percent of original density.
- Where necessary, rip the top soil layers to achieve the appropriate soil density. Ripping may also be used in areas where vehicle and equipment traffic have compacted the top soil layers, such as the construction staging areas.
- Avoid working or traveling on wet soil to minimize compaction and loss of soil structure. Before construction begins, geotechnical testing will be done to determine the moisture content limit above which work should not occur. Where working or driving on wet soil cannot be avoided, roadways will be capped with spoils that will be removed at the end of construction and/or ripped and amended with organic material as needed.
- Remove all construction-related debris from the soil surface. This will prevent rock, gravel, and construction debris from interfering with agricultural activities.
- Perform soil density monitoring during backfill and ripping to minimize excessive compaction and minimize effects on future agricultural land use.
- Remove topsoil before excavating in fields. Return it to top of fields to avoid detrimental inversion of soil profiles.
- Control compaction to minimize changes to lateral groundwater flow which could affect both irrigation and internal drainage.

Findings

Based on the EIR/EIS and the entire record before NWMD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated

into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures to support the continued productive use of important farmlands in the action area would mitigate any impacts from project construction.

Impact 3.6.4 Conversion of Farmland

Impact 3.6.4: The project would permanently convert Important Farmland to nonagricultural use.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less-than-significant level.

> **Mitigation Measure 3.6.4:** To support the continued productive use of Important Farmlands in the action area, the appropriate Member Agency shall implement the following measures during project construction:
>
> - Replace soils over pipelines in a manner that will minimize any negative impacts on crop productivity. The surface and subsurface soil layers will be stockpiled separately and returned to their appropriate locations in the soil profile.
> - To avoid over-compaction of the top layers of soil, monitor pre-construction soil densities and return the surface soil (approximately the top 3 feet) to within 5 percent of original density.
> - Where necessary, rip the top soil layers to achieve the appropriate soil density. Ripping may also be used in areas where vehicle and equipment traffic have compacted the top soil layers, such as the construction staging areas.
> - Avoid working or traveling on wet soil to minimize compaction and loss of soil structure. Before construction begins, geotechnical testing will be done to determine the moisture content limit above which work should not occur. Where working or driving on wet soil cannot be avoided, roadways will be capped with spoils that will be removed at the end of construction and/or ripped and amended with organic material as needed.
> - Remove all construction-related debris from the soil surface. This will prevent rock, gravel, and construction debris from interfering with agricultural activities.
> - Perform soil density monitoring during backfill and ripping to minimize excessive compaction and minimize effects on future agricultural land use.
> - Remove topsoil before excavating in fields. Return it to top of fields to avoid detrimental inversion of soil profiles.

- Control compaction to minimize changes to lateral groundwater flow which could affect both irrigation and internal drainage.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Based on the Final EIR/EIS and the entire record before NMWD, the Board finds that the mitigation measure will reduce the significant effect to a less-than-significant level.

Section 3.7 Traffic and Transportation

Impact 3.7.1 Temporary Congestion and Delays

Impact 3.7.1: Project construction activities could adversely affect traffic and transportation conditions in the action area.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.7.1a: The appropriate Member Agency for each project component shall obtain and comply with local road encroachment permits for roads that are affected by construction activities.

The *Work Area Protection and Traffic Control Manual* includes requirements to ensure safe maintenance of traffic flow through or around the construction work zone, and safe access of police, fire, and other rescue vehicles (CJUTCC, 1996). In addition, the Traffic Management Plan (subject to local jurisdiction review and approval) required by **Mitigation Measure 3.7.1b**, below, would direct how traffic flow is safely maintained during project construction.

Mitigation Measure 3.7.1b: The construction contractor for each project component shall prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the appropriate local jurisdiction prior to construction. The plan shall:

- Identify hours of construction (between 8:00 AM and 7:00 PM; no construction shall be permitted between 10:00 PM and 7:00 AM);

- Identify hours for deliveries (Monday – Friday, 9:00 AM to 3:30 PM, or other hours if approved by the appropriate local jurisdiction);

- Include a discussion of haul routes, limits on the length of open trench, work area delineation, traffic control and flagging;

- Identify all access and parking restriction, pavement markings and signage requirements (e.g., speed limit, temporary loading zones);

- Layout a plan 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. 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 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 to coordinate all construction activities with the appropriate local school district at least two months in advance. The school district shall be notified of the timing, location, and duration of construction activities. Coordinate with the appropriate local school district to identify peak circulation periods at schools along the alignment(s) (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods. The construction contractor for each project component shall be required to maintain vehicle, pedestrian, and school bus service during construction 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;

- Include the requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and

- Specify the street restoration requirements pursuant to agreements with the local jurisdictions.

Mitigation Measure 3.7.1c: The appropriate Member Agency for each project component shall identify all roadway locations where special construction techniques (e.g., horizontal boring, directional drilling or night construction) will be used to minimize impacts to traffic flow.

Mitigation Measure 3.7.1d: The appropriate Member Agency for each project component shall develop circulation and detour plans to minimize impact to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone.

Mitigation Measure 3.7.1e: The appropriate Member Agency for each project component shall encourage construction crews to park at staging areas to limit lane closures in the public right-of-way.

Mitigation Measure 3.7.1f: The appropriate Member Agency for each project component shall consult with the appropriate public transit service providers at least one month prior to construction to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Traffic mitigating measures such as preparing an implementing a traffic control and management plan and complying with the local road encroachment permits would minimize impacts from congestion during project construction.

Impact 3.7.2 Temporary Disruption to Access

Impact 3.7.2: Project construction activity would temporarily disrupt circulation patterns near sensitive land uses (schools, hospitals, fire stations, police stations, and other emergency providers).

Mitigation

Mitigation Measure 3.7.2a: Pipeline construction near schools shall occur when school is not in session (i.e., summer or holiday breaks). If this is not feasible, a minimum of two months prior to project construction, the appropriate Member Agency for each project component shall coordinate with the appropriate local school district to identify peak circulation periods at schools along the alignment(s) (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods.

Mitigation Measure 3.7.2b: A minimum of two months prior to project construction, the appropriate Member Agency for each project component shall coordinate with the appropriate local school district to identify alternatives to their Safe Routes to School program, alternatives for the school busing routes and stop locations, and other circulation provisions, as part of the Traffic Control/Traffic Management Plan (see Mitigation Measure 3.7.1a).

Mitigation Measure 3.7.2c: Implement Mitigation Measure 3.7.1b.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated

into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Coordination with local school districts and identifying alternative traffic routes would minimize the impacts from temporary disruption to access to sensitive land uses.

Impact 3.7.3 Temporary Disruption to Access

Impact 3.7.3: Project construction activity would have temporary effects on alternative transportation or alternative transportation facilities.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.7.3: Implement Mitigation Measure 3.7.1f.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Consulting with the appropriate public transit service providers prior to construction would minimize effects on access to alternative transportation facilities.

Impact 3.7.4 Temporary Displacement of Parking

Impact 3.7.4: Project construction activity would temporarily create parking demand for construction workers and construction vehicles, and displace parking spaces.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.7.4: Implement Mitigation Measure 3.7.1e.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Parking at construction staging areas would reduce the impacts from the increase in parking demand for construction workers.

Impact 3.7.5 Temporary Potential Traffic Hazards

Impact 3.7.5: Project construction activity would temporarily increase the potential for accidents on project roadways.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.7.5: Implement Mitigation Measure 3.7.1b through 3.7.1f.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures noted above to reduce traffic congestion and delays from increased traffic from project construction would minimize any related traffic hazards.

Impact 3.7.6 Road Wear

Impact 3.7.6: Project construction activity would increase wear and tear on the designated haul routes used by construction vehicles to access the project work sites.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less-than-significant level.

Mitigation Measure 3.7.6: Roads damaged by construction shall be repaired to a structural condition equal to that which existed prior to construction activity as per conditions of the encroachment permit (see Mitigation Measure 3.7.1a).

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

The roads used for construction would be restored to pre-existing condition, therefore the traffic from project construction would not cause significant road wear.

Section 3.8 Air Quality

Impact 3.8.1 Temporary Construction Emission of Criteria Pollutants

Impact 3.8.1: Project construction activities could result in substantial short-term criteria pollutant emissions.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

Mitigation Measure 3.8.1a: Construction Fugitive Dust Control Plan. The appropriate Member Agency shall require its contractor(s) to implement a dust control plan that shall include the following dust control procedures during construction as required by the BAAQMD:

- Water all active construction areas at least twice daily, taking into consideration temperature and wind conditions.
- Cover all trucks hauling soil, sand, and other loose materials *or* require trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways, consistent with **Mitigation Measure 3.1.2**, Erosion Control.
- Replant vegetation in disturbed areas as quickly as possible.

Mitigation Measure 3.8.1b: Construction Exhaust Emissions Control Plan. The appropriate Member Agency shall require its contractor(s) to implement an exhaust emissions control plan that shall include the following controls and practices:

- On road vehicles with a gross vehicular weight rating of 10,000 pounds or greater shall not idle for longer than five minutes at any location as required by Section 2485 of Title 13, Division 3, Chapter 10, Article 1 of the California Code of Regulations. This restriction does not apply when vehicles remain motionless during traffic or when vehicles are queuing.
- Off road equipment engines shall not idle for longer than five minutes per Section 2449(d)(3) of Title 13, Division 3, Chapter 9, Article 4.8 of the California Code of Regulations. All vehicle operators shall receive a written idling policy to inform them of idling restrictions. The policy shall list exceptions to this rule that include the following: idling when queuing; idling to verify that the vehicle is in safe operating condition; idling for testing, servicing, repairing or diagnostic purposes; idling necessary to accomplish work for which the vehicle was designed (such as operating a crane); idling required to bring the machine to operating temperature as specified by the manufacturer; and idling necessary to ensure safe operation of the vehicle.
- Off road engines greater than 50 horsepower shall, at a minimum, meet Tier 2 emissions standards. When available, higher Tier engines shall be utilized. Additionally, contractor(s) shall comply with current CARB and BAAQMD regulations for off-road engines greater than 50 horsepower.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Implementation of fugitive dust control plan and exhaust emissions plan would minimize emissions of criteria air pollutants during construction.

Section 3.9 Noise

Impact 3.9.1 Temporary Construction Noise

Impact 3.9.1: Construction activity would violate standards established in the local general plans or noise ordinances, and/or would adversely affect nearby sensitive receptors.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.9.1:** The appropriate Member Agency shall develop and implement a Construction Noise Reduction Plan that requires, at a minimum, the following:
>
> - The contractor shall locate all stationary noise-generating equipment, including hammer bore and drill rigs, as far as possible from nearby noise-sensitive receptors. Stationary noise sources located within 500 feet of noise-sensitive receptors shall be equipped with noise reducing engine housings, and the line of sight between such sources and nearby sensitive receptors shall be blocked by portable acoustic barriers.
> - The contractor shall assure that construction equipment with internal combustion engines have sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment shall be permitted to have an un-muffled exhaust.
> - All construction activities within unincorporated areas shall be limited to between the hours depending upon the jurisdiction.
> - Residences and other sensitive receptors within 200 feet of a construction area shall be notified of the construction schedule in writing, at least two weeks prior to the commencement of construction activities. This notice shall indicate the allowable hours of construction activities as specified by the applicable local jurisdiction or as defined by this mitigation measure. The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to complaints regarding construction noise. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance coordinator shall be conspicuously placed on construction site fences and entrances and included in the construction schedule notification sent to nearby residences and sensitive receptors.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Construction noise levels would be limited to hours set forth in applicable noise ordinances. Construction would be short-term and temporary, therefore sensitive receptors would only be exposed to increased noise levels for a short duration.

Impact 3.9.2 Temporary Vibration Impacts

Impact 3.9.2: Construction activities could expose sensitive receptors to excessive ground-borne vibration levels.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.9.2:** The appropriate Member Agency will implement the following measure:
>
> > The construction contractor shall use a trenchless technology (e.g., horizontal directional drill, lateral drilling, etc.) other than jack and bore when there are structures within 100 feet of the proposed activities. If the construction contractor provides the Member Agency with acceptable documentation indicating that alternative trenchless technology is not feasible for the crossing, the contractor shall develop and implement a Construction Vibration Mitigation Plan to minimize construction vibration damage using all reasonable and feasible means available, including siting the jack and bore as far a possible from all nearby structures. The plan shall provide a procedure for establishing thresholds and limiting vibration values for potentially affected structures based on an assessment of each structure's ability to withstand the loads and displacements due to construction vibrations. The plan should also include the development of a vibration monitoring plan to be implemented during construction of particular crossing.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Most of the proposed pipelines would be installed along existing roadways and may not require use of jack and bore tunneling. In the event jack and bore tunneling would be required, the impacts from ground borne vibration would minimized by implementing a construction vibration mitigation plan.

Impact 3.9.3 Permanent Increases to Ambient Noise Levels

Impact 3.9.3: Operational activities could permanently generate noise levels above existing ambient levels in the vicinity of sensitive receptor locations.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.9.3:** The appropriate Member Agency shall implement the following measure:
>
> - All new pump stations shall be located within enclosed structures with adequate setback and screening to achieve acceptable regulatory noise standards for industrial uses as well as to achieve acceptable levels at the property lines of nearby residences, as determine by the applicable local jurisdiction. Noise enclosures shall be designed to reduce equipment noise levels by at least 20 dBA.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Implementation of the mitigation measure would lessen distribution and booster pump station-related noise levels that could permanently increase ambient noise levels.

Section 3.10 Hazardous Materials

Impact 3.10.1 Exposure to Hazardous Materials

Impact 3.10.1: Project construction could expose workers and the public to hazardous materials that could be present in the soil or shallow groundwater encountered during excavation.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.10.1a:** Project contract specifications shall require that, in the event that evidence of potential soil contamination such as soil discoloration, noxious odors, debris, or buried storage containers, is encountered during construction, the contractor will have a contingency plan for sampling and analysis of potentially hazardous substances,

including use of a photoionization detector. The required handling, storage, and disposal methods shall depend on the types and concentrations of chemicals identified in the soil. Any site investigations or remediation shall comply with applicable laws and will coordinate with the appropriate regulatory agencies,

Mitigation Measure 3.10.1b: If unknown USTs are discovered during construction, the UST, associated piping, and impacted soil shall be removed by a licensed and experienced UST removal contractor. The UST and contaminated soil shall be removed in compliance with applicable county and state requirements governing UST removal.

Mitigation Measure 3.10.1c: Prepare a project-specific Health and Safety Plan that would apply to excavation activities. The plan shall establish policies and procedures to protect workers and the public from potential hazards posed by hazardous materials. The plan shall be prepared according to federal and California OSHA regulations and submitted to the appropriate agency with jurisdiction prior to beginning site activities.

Mitigation Measure 3.10.1d: Project contract specifications shall include a Dust Abatement Program to minimize potential public health impacts associated with exposure to contaminants in soil dust.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such as preparation of a health and safety plan and dust abatement program would reduce any exposure to hazardous materials during construction.

Impact 3.10.2 Release of Hazardous Materials

Impact 3.10.2: Project construction could increase the potential for accidental release of hazardous materials.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

Mitigation Measure 3.10.2a: Consistent with the SWPPP requirements, the construction contractor shall be required to implement BMPs for handling hazardous materials onsite. The use of construction BMPs will minimize any adverse effects on groundwater and soils, and will include, but not limited to, the following:

- Follow manufacturers' recommendations and regulatory requirements for use, storage, and disposal of chemical products and hazardous materials used in construction;
- Spill control and countermeasures, including employee spill prevention/response training;
- Avoid overtopping construction equipment fuel gas tanks;
- During routine maintenance of construction equipment, properly contain and remove grease and oils; and
- Properly dispose of discarded containers of fuels and other chemicals.

Mitigation Measure 3.10.2b: The contractor shall follow the provisions of California Code of Regulations, Title 8, Sections 5163 through 5167 for General Industry Safety Orders to protect the action area from being contaminated by the accidental release of any hazardous materials and/or wastes. The local Certified Unified Program Agency (CUPA) will be contacted for any site-specific requirements regarding hazardous materials or hazardous waste containment or handling.

Mitigation Measure 3.10.2c: Oil and other solvents used during maintenance of construction equipment shall be recycled or disposed of in accordance with applicable regulatory requirements. All hazardous materials shall be transported handled, and disposed of in accordance with applicable regulatory requirements.

Mitigation Measure 3.10.2d: In the event of an accidental release of hazardous materials during construction, containment and clean up shall occur in accordance with applicable regulatory requirements.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Implementation of BMPs to control usage and handling of hazardous materials and following regulatory requirements in the event of spills would reduce release of hazardous materials and any impacts associated with the release.

Impact 3.10.4 Wildland Fires Hazard

Impact 3.10.4: Construction activities in grassland areas could have the potential to expose people or equipment to risk of loss, injury, or death involving wildland fires.

Mitigation Applicable to NMWD.

Mitigation Not Applicable to Napa County, SVCSD, and Napa SD.

Mitigation Applicable to LGVSD and Novato SD.

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.10.4a:** For applicable Member Agencies, in consultation with local fire agencies, a Fire Safety Plan will be developed for each of the service areas associated with the project. The Fire Safety Plan(s) will describe various potential scenarios and action plans in the event of a fire.
>
> **Mitigation Measure 3.10.4b:** For applicable Member Agencies, during project construction, all staging areas, welding areas, or areas slated for development using spark-producing equipment will be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be equipped with a spark arrestor in good working order. All vehicles and crews working at the project site(s) will have access to functional fire extinguishers at all times. In addition, construction crews will be required to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Development and implementation of a Fire Safety Plan, and implementation of best management practices during construction would reduce fire hazards to a less-than-significant level.

Section 3.11 Public Services and Utilities

Impact 3.11.1 Temporary Effect on Response Times for Emergency Service Providers

Impact 3.11.1: Project construction activities could temporarily affect response times for emergency service providers.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.11.1:** The Member Agencies will coordinate with local emergency service providers in its service area to inform them of the proposed construction activities and schedule, and provide temporary alternate access routes around construction areas as necessary.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Coordinating with local emergency service providers would reduce any effects on the response times for emergency response during project construction.

Impact 3.11.2 Short-term Police and Fire Assistance

Impact 3.11.2: Project construction activities could require short-term police and fire protection services to assist in traffic management or in the event of an accident.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.11.2:** Public service providers shall provide, upon request, a copy of the Traffic Control Plan to the related police and fire agencies for their review prior to construction. The appropriate Member Agency shall provide 72-hour notice to the local service providers prior to construction of individual pipeline segments. Discussion on the Traffic Control Plan is provided in Section 3.7, Traffic and Circulation.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

As noted in the traffic control plan, pre-construction notice to the local service providers would reduce any impacts related to police and fire assistance during project construction.

Impact 3.11.3 Temporary Accidental Disruption to Utility Services

Impact 3.11.3: Project construction could result in temporary planned or accidental disruption to utility services.

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. This measure will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.11.3:** The Member Agencies will identify utilities along the proposed pipeline routes and project sites prior to construction and implement the following measures:
>
> a. Utility excavation or encroachment permits shall be obtained as required from the appropriate agencies. These permits include measures to minimize utility disruption. The service provider and its contractors shall comply with permit conditions regarding utility disruption.
>
> b. Utility locations shall be verified through the use of the Underground Service Alert services and/or field survey (potholing).
>
> c. As necessary, detailed specifications shall be prepared as part of the design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utility services shall be notified of construction plans and schedule. Arrangements shall be made with these entities regarding protection, relocation, or temporary disconnection of services.
>
> d. In areas where the pipeline would traverse parallel to underground utility lines within five feet, the project applicant shall employ special construction techniques, such as trench wall-support measures to guard against trench wall failure and possible resulting loss of structural support for the excavated areas.
>
> e. Residents and businesses in the project corridor shall be notified of any planned utility service disruption two to four days in advance, in conformance with county and state standards.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Identifying utilities along the proposed pipeline routes and project sites prior to construction and executing measures to notify and coordinate with the affected utility services would minimize accidental disruption of utility services.

Section 3.12 Cultural Resources

Impact 3.12.1 Impact to Cultural Resources/Archaeological Sites

Impact 3.12.1: Project construction could affect existing cultural resources or uncover unknown and/or buried archaeological materials in areas of high prehistoric archaeological sensitivity.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

Mitigation Measure 3.12.1: The standard Section 106 process outlined at 36 CFR Part 800 will be completed prior to supplying Federal funds to be used for construction of any facilities for the project. This includes all construction money that involves whole or in partial financing and includes both payment in advance or in reimbursement.

If project circumstances are such that it is infeasible to implement the measures identified below, a phased identification and evaluation strategy that accounts for the individual project effects will be developed in accordance with the procedures for doing so detailed in 36 CFR Part 800.4(b)(2). The alternative procedures would provide a similar level of accounting regarding the effects to cultural resources in a manner not inconsistent with the standard process provided for at 36 CFR Part 800. The alternative procedures agreed to in the Programmatic Agreement would need to be completed prior to construction of any actions that are subsidized with Federal funds. Pursuant to the Section 106 process, the appropriate Member Agency will incorporate the following measures:

Mitigation Measure 3.12.1a: Prepare a Cultural Resources Monitoring Plan. Prior to authorization to proceed, or issuance of permits, the applicant shall prepare and submit a cultural resources monitoring plan to the appropriate jurisdiction for review and approval. Monitoring shall be required for all surface alteration and subsurface excavation work including trenching, boring, grading, use of staging areas and access roads, and driving vehicles and equipment within all areas delineated as sensitive for cultural resources. A qualified professional archaeologist (cultural resources monitor) that is approved by each Member Agency in consultation with all affected jurisdictions shall prepare the plan. The plan shall address (but not be limited to) the following issues:

- Training program for all construction and field workers involved in site disturbance;
- Person(s) responsible for conducting monitoring activities, including Native American monitors;

- How the monitoring shall be conducted and the required format and content of monitoring reports, including any necessary archaeological re-survey of the final pipeline alignment (including the need to conduct shovel-test units or auger samples to identify deposits in advance of construction), assessment, designation and mapping of the sensitive cultural resource areas on final project maps, assessment and survey of any previously unsurveyed areas;

- Person(s) responsible for overseeing and directing the monitors;

- Schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports;

- Procedures and construction methods to avoid sensitive cultural resource areas (i.e. boring conduit underneath recorded or discovered cultural resource site);

- Clear delineation and fencing of sensitive cultural resource areas requiring monitoring;

- Physical monitoring boundaries (e.g., 200-foot radius of a known site);

- Protocol for notifications in case of encountering of cultural resources, as well as methods of dealing with the encountered resources (e.g., collection, identification, curation);

- Methods to ensure security of cultural resources sites;

- Protocol for notifying local authorities (i.e. Sheriff, Police) should site looting and other illegal activities occur during construction.

Mitigation Measure 3.12.1b: Archaeological and Native American Monitoring. If an intact archaeological deposit is encountered, all soil disturbing activities in the vicinity of the deposit shall cease until the deposit is evaluated. The appropriate Member Agency, as necessary, shall retain the services of a Native American monitor and a qualified archaeological consultant that has expertise in California prehistory to monitor ground-disturbing within areas designated as being sensitive for buried cultural resources. The archaeological monitor shall immediately notify the appropriate Member Agency of the encountered archaeological deposit. The monitors shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, present the findings of this assessment to NBWRA and the appropriate Member Agency. During the course of the monitoring, the archaeologist may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to impact resources.

If a Member Agency, in consultation with the monitors, determines that a significant archaeological resource is present within their jurisdiction and that the resource could be adversely affected by the NBWRP, the Member Agency shall:

- Re-design the NBWRP to avoid any adverse effect on the significant archaeological resource; *or*,

- Implement an archaeological data recovery program (ADRP) (unless the archaeologist determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible). If the

circumstances warrant an archaeological data recovery program, an ADRP shall be conducted. The project archaeologist and the Member Agency shall meet and consult to determine the scope of the ADRP. The archaeologist shall prepare a draft ADRP that shall be submitted to the appropriate Member Agency for review and approval. The ADRP shall identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ADRP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, shall be limited to the portions of the historic property that could be adversely affected by the NBWRP. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

Mitigation Measure 3.12.1c: Cultural Resources Assessment for Staging Areas. When locations for staging are defined the areas of potential effect should be subject to a cultural resources investigation that includes, at a minimum:

- An updated records search at the Northwest Information Center;
- An intensive survey of all areas within the lots;
- A report disseminating the results of this research; and,
- Recommendations for additional cultural resources work necessary to mitigate any adverse impacts to recorded and/or undiscovered cultural resources.

Mitigation Measure 3.12.1d: Inadvertent Discoveries. If discovery is made of items of historical or archaeological interest, the contractor shall immediately cease all work activities in the area (within approximately 100 feet) of discovery. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. After cessation of excavation the contractor shall immediately contact the NBWRA and appropriate Member Agency. The contractor shall not resume work until authorization is received from the appropriate Member Agency.

- In the event of unanticipated discovery of archaeological indicators during construction, the Member Agency shall retain the services of a qualified professional archaeologist to evaluate the significance of the items prior to resuming any activities that could impact the site.
- In the case of an unanticipated archaeological discovery, if it is determined that the find is unique under the National Historic Preservation Act (NHPA) and/or potentially eligible for listing in the National Register, and the site cannot be avoided, appropriate Member Agency shall provide a research design and excavation plan, prepared by an archaeologist, outlining recovery of the resource, analysis, and reporting of the find. The research design and excavation plan shall be submitted to

NBWRA and appropriate Member Agency and approved by the appropriate Member Agency prior to construction being resumed.

Mitigation Measure 3.12.1e: Project-level Cultural Resources Assessment. When project-level plans are completed for the Basic System; the Partially Connected System; and the Fully Connected System, NBWRA the appropriate Member Agency will conduct a cultural resources investigation for the APE that includes, at a minimum:

- An updated records search at the Northwest Information Center (NWIC);
- An intensive cultural resources survey of the Area of Potential Effect (APE);
- A report disseminating the results of this research; and,
- Recommendations for additional cultural resources work necessary to mitigate any adverse impacts to recorded and/or undiscovered cultural resources.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Measures such Section 106 consultation and monitoring of cultural resources, archaeological and Native American sites, and cultural resource assessment would minimize impacts to the sites.

Impact 3.12.2 Discovery of Human Remains

Impact 3.12.2: Project construction could result in damage to previously unidentified human remains.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

Mitigation Measure 3.12.2: Discovery of Human Remains. If potential human remains are encountered, the appropriate Member Agency shall halt work in the vicinity of the find and contact the county coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. If the coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Commission (NAHC). As provided in Public Resources Code Section 5097.98, the NAHC shall identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent makes recommendations for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

In the inadvertent discovery of human remains, work would halted and the mitigation would include notifying the NAHC and the most likely descendants would recommend the means of treating and disposing the remains.

Section 3.13 Recreation

Impact 3.13.1 Temporary Disturbance

Impact 3.13.1: Project construction could result in short-term disturbance adjacent to recreational facilities.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. These measures will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.13.1a:** The appropriate Member Agency shall coordinate with the appropriate local and regional agencies to identify detour routes for the bikeways and trails during construction where feasible, as part of the Traffic Control/Traffic Management Plan (see Measure 3.11.1a).
>
> **Mitigation Measure 3.13.1b:** Implement Mitigation Measures 3.8-1a through 3.8.1b, Mitigation Measures 3.9.1 through 3.9-3.
>
> **Mitigation Measure 3.13.2:** Before beginning construction, the contractor will develop, in consultation with the appropriate representative(s) of the affected park's managing agency, a plan indicating how public access to the park will be maintained during construction. If needed, flaggers will be stationed near the construction activity area to direct and assist members of the public around the activity areas while maintaining access to the parks.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Coordination with the local agencies and consulting local park management agency prior to construction would minimize any disturbance to recreational facilities.

Section 3.14 Aesthetics

Impact 3.14.1 Temporary Impact to Scenic Vista

Impact 3.14.1: NBWRP construction activities could temporarily affect scenic vistas or corridors in the NBWRP area.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.14.1a:** Following construction activities, disturbed areas shall be restored to baseline conditions, including repaving roadways, replanting trees, and/or reseeding with a native seed mix typical of the immediately surrounding area.
>
> **Mitigation Measure 3.14.1b:** Berms around constructed reservoirs shall be vegetated with native seed mixes to soften the visual effect of the reservoirs from adjacent roadways.
>
> **Mitigation Measure 3.14.1c:** Design elements shall be incorporated to enhance visual integration of the booster pump station and distribution pump station with their surroundings. Proposed facilities shall be painted low-glare earth-tone colors that blend with the surrounding terrain. Highly reflective building materials and/or finishes shall not be used in the designs for proposed facilities.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Temporary effects to scenic vistas would be minimized by restoring the areas to pre-existing conditions and incorporating design elements to integrate the project components with the surroundings.

Impact 3.14.2 Impact to Views Along Scenic Roadways

Impact 3.14.2: Implementation of NBWRP could affect views along eligible or designated Caltrans Scenic Highways, or locally-defined scenic routes.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

The appropriate Member Agency will implement the following measures:

Mitigation Measure 3.14.1a (identified above)
Mitigation Measure 3.14.1b (identified above)

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Implementation of measures to minimize effects on scenic vista would also lessen the impacts to views along scenic roadways.

Impact 3.14.3 Source of Light or Glare

Impact 3.14.3: NBWRP components could introduce new sources of light and glare on the project sites.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

Mitigation Measure 3.14.3a: The exterior lighting installed around the operational and capacity storage reservoirs, distribution pump station, storage tanks, and booster pump station shall be of a minimum standard required to ensure safe visibility. Lighting also shall be shielded and directed downward to minimize impacts of light and glare.

Mitigation Measure 3.14.3b: All exterior lighting is directed downward and oriented to insure that limited light source is directly visible from neighboring residential areas. If necessary, landscaping would be provided around proposed facilities. The vegetation would be selected, placed, and maintained to minimize off-site light and glare onto surrounding areas.

Mitigation Measure 3.14.1c: Design elements shall be incorporated to enhance visual integration of the booster pump station and distribution pump station with their surroundings. Proposed facilities shall be painted low-glare earth-tone colors that blend with the surrounding terrain. Highly reflective building materials and/or finishes shall not be used in the designs for proposed facilities.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Exterior lighting for the proposed components would be designed and installed to reduce the glare.

Impact 3.14.4 Long-term Impact to Aesthetic Character

Impact 3.14.4: Development of the proposed facilities, particularly pump stations and storage reservoirs, would permanently alter the aesthetic character of the action area.

Mitigation

The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP. The measures will mitigate the above impact to a less than significant level.

> **Mitigation Measure 3.14.4a:** After construction of any facility that is above grade and visible to sensitive receptors, visual screening and vegetation measures will be implemented to reduce impacts to scenic views. Trees or other suitable vegetation along the fenceline of the facility should be incorporated to reduce the industrial appearance of the structures. Similarly, berms for new storage ponds or pond reconfiguration will be re-vegetated to reduce the barren appearance of the berms.
>
> **Mitigation Measure 3.14.4b:** Dark colored, non-reflective building materials should be used for project components that cause potentially significant impact from glare to visual resources.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Designing the project elements to provide visual screening or using non-reflecting building materials would not have a significant effect to the existing aesthetic character.

Chapter 4 Cumulative Impacts

Impact 4.1 Wastewater Treatment Capacity

Impacts 4.1: Construction-related Cumulative Impacts. Concurrent construction of several projects within the Sonoma, Napa, and Marin County areas could result in cumulative short-term impacts associated with construction activities. If implemented at the same time as other construction projects, construction of facilities under all three of the alternatives could contribute to potential short-term cumulative effects associated with erosion, cultural resource disturbance, disturbance of adjacent land uses, traffic disruption, dust generation, construction noise, aesthetics, air quality, biological resources, hazardous materials, water quality, public services and utilities. However, construction-related impacts would not result in long term alteration of the environment, and could be mitigated to less than significant levels through the use of mitigation measures identified throughout Chapter 3 (of the Draft EIR/EIS).

Mitigation

The following mitigation measure is hereby adopted and will be implemented as set forth in the MMRP. The measure will mitigate the above impact to a less than significant level.

> **Mitigation Measure 4.1:** Member Agencies shall coordinate construction activities along selected alignments to identify overlapping pipeline routes, project areas, and construction schedules. To the extent feasible, construction activities shall be coordinated to consolidate the occurrence of short-term construction-related impacts.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Due to their short-term nature and the inclusion of appropriate mitigation measures as established in Chapter 3 of the Draft EIR/EIS, NBWRP's contribution to cumulative impacts on wastewater treatment capacity is not considerable.

Impact 4.5 Cumulative Long-term Impacts on Biological Resources

Impact 4.5: Concurrent construction of the NBWRP with other projects proposed in the Sonoma, Napa, and Marin County area, and other water and wastewater infrastructure projects, could result in cumulative long-term impacts to biological resources.

Mitigation

Implement Measures 3.5.1 through 3.5.14. The following mitigation measures are hereby adopted and will be implemented as set forth in the MMRP.

Findings

Based on the EIR/EIS and the entire record before NMWD, the Board finds, in accordance with CEQA Section 15901(a)(1), that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Rationale

Mitigation measures for protection of the biological resources would minimize project impacts and its contribution to cumulative impacts to less than cumulatively considerable.

CHAPTER 4
Findings Concerning Project Alternatives

4.1 Introduction

CEQA requires that an EIR "describe a range of reasonable alternatives to the project or to the location of the project, which could feasibly attain the basic objectives of the project…" CEQA Guidelines §15126 (d). If a project alternative will substantially lessen the significant environmental effects of a proposed project, the decision maker should not approve the proposed project unless it determines that specific economic, legal, social, technological, or other considerations,… make the project alternative infeasible." Public Resources Code §21002, CEQA Guidelines §15091(a)(3). The EIR evaluated alternative approaches to accomplishing the objectives of the project. The Findings with respect to the alternatives identified in the Draft EIR/EIS are identified is this section.

4.2 Proposed Objectives

The project is proposed to promote the expanded beneficial use of recycled water in the North Bay region to achieve the following objectives:

- Offset urban and agricultural demands on potable water supplies;
- Enhance local and regional ecosystems;
- Improve local and regional water supply reliability;
- Maintain and protect public health and safety;
- Promote sustainable practices;
- Give top priority to local needs for recycled water, and;
- Implement recycled water facilities in an economically viable manner.

4.3 Reasonable Range of Alternatives and Findings

Three alternatives were analyzed in the Draft EIR/EIS at a project or program level of detail in addition to the "No Project Alternative" and the "No Action Alternative". Each of the action alternatives (discussed below) were developed to meet the purpose, objectives, and need identified by the North Bay Water Reuse Authority (NBWRA).

- **No Project Alternative,** assumes that the proposed project is not implemented, and reviews two scenarios: 1) consideration of existing conditions without the project, a "no build scenario"; and 2) consideration of "reasonably foreseeable" future conditions without the project. This second scenario is identical to the No Action Alternative, identified below.
- **No Action Alternative,** provides a "future without the project" scenario as a baseline to compare the impacts of the proposed Action Alternatives.
- **Alternative 1, Basic System**, includes use of recycled water near each of the individual wastewater treatment plants (WWTPs);
- **Alternative 2, Partially Connected System**, adds additional pipelines, pump stations and storage to partially connect the existing WWTPs; and
- **Alternative 3, Fully Connected System**, provides a fully integrated recycled water distribution system connecting all four Member Agency WWTPs.

In addition to the alternatives of the project above, Chapter 6, Alternatives, of the Draft EIR/EIS examined the following alternatives to the project:

- **Importation of Water**
  - Importation of Recycled Water
  - Importation of Potable Water
- **Desalination**

4.3.1 No Project Alternative

Discussion of the No-Project Alternative must examine the existing conditions and reasonably foreseeable future conditions that would exist if the project were not approved (CEQA §15126.6(e)). Under the No Project Alternative, the NBWRA would not implement construction of facilities identified under the Proposed Action to provide a reliable recycled water distribution system to serve the water users in the LGVSD, Novato SD, SVCSD, and Napa SD service areas.

Relationship to Project Objectives

Implementation of the No Project Alternative would not provide the benefits of water reclamation which include recycled water use, potable supply savings, reduced reliance on surface and groundwater, reduced groundwater pumping, and habitat enhancement. Additionally, the No Project Alternative would not improve current water reliability, either locally or regionally, particularly during peak demand periods. The No Project Alternative would not comply with State goals for water recycling, and would not reduce or assist in management of discharges to San Pablo Bay.

Environmental Impacts

Implementation of the No Project Alternative would avoid the construction related impacts and operational impacts identified for the proposed project. As identified in Section 3.0, impacts

associated with the proposed project would be reduced to a less than significant level through the incorporation of mitigation measures identified in the Draft EIR/EIS. The No Project Alternative would not result in the level of potable offset for imported surface water, local surface water and groundwater supplies that would be provided under the Action Alternatives. Similarly, it would not substantially alter the amount of treated effluent discharged to tributaries to North San Pablo Bay. Over time, demand pressures on imported surface water, local surface water, and groundwater supplies would be increased, and current water supply and delivery reliability issues would be exacerbated as growth under the approved General Plans within the NBWRP service area occurs. The No Project Alternative would not take advantage of a local, sustainable, and energy efficient water supply.

Findings

The No Project Alternative fails to achieve any of the project objectives, which are directed at improving water supply reliability, recharging groundwater, offsetting surface water demand, minimizing environmental impacts, achieving financial sustainability, and protecting human health. Because it would not meet any of the project objectives, the No Project Alternative is infeasible.

4.3.2 No Action Alternative

In addition to the No Project Alternative, the EIR examines a No Action Alternative, as required under NEPA. The No Action Alternative represents a "future-without-project" scenario: a continuation of existing conditions for an estimation of the most reasonable future conditions that could occur without implementation of any action alternatives. The No Action Alternative assumes that there is no joint project among the Member Agencies. It represents the "current status" in which additional wastewater treatment capacity and water recycling occurs strictly from the implementation of local plans for expansion, and the potential need to develop additional potable water supplies continues to be a regional challenge. In general, each Member Agency would continue to implement individual water recycling projects, subject to the availability of funding and completion of the CEQA process. The No Action Alternative would likely result in a smaller increment of water recycling projects within the region. For example it is anticipated that SVCSD would implement only one of the four pipeline systems identified in the Sonoma Valley Recycled Water Project (SVRWP) EIR, based upon the ability to fund such construction. Additionally, the lack of federal funding may delay or preclude the implementation of individual planned projects, due to the need to increase user rates in order to provide funds for implementation.

Relationship to Project Objectives

Implementation of the No Action Alternative would partially meet some the project objectives, as it assumes that a smaller subset of recycled water projects, providing approximately 1,067 acre-feet per year (AFY) of recycled water, would be implemented. The No Action Alternative would not satisfy any of the project objectives to the degree of the proposed project, and it would not

meet the objective of providing regional water supply reliability, as no connections between the WWTPs would occur.

This alternative would not involve the capital costs associated with the Basic, Partially Connected, and Fully Connected Systems; however it would not be the most economically superior alternative. Financial constraints would limit implementation to local projects and these projects would be ineligible for federal or state funding.

Environmental Impacts

The No Action Alternative would also have a subset of the impacts identified in Section 3.0, primarily associated with the construction of the facilities that individual member agencies would be able to implement without the benefit of regional coordination or federal funding. Under the No Action Alternative, projects in the Novato SD and SVCSD service areas would likely occur, and would provide approximately 1,067 AFY of recycled water. Adverse environmental impacts associated with the construction of pipelines and pump stations would occur under the No Action Alternative, however to a lesser degree than the Basic, Partially Connected, and Fully Connected Systems. The impacts would likely be shorter in duration and would affect fewer sensitive receptors than those expected under implementation of the Proposed Action. In general, construction-related emissions and impacts to air quality, and increased ambient noise would result under the other action alternatives except for the No Project Alternatives. Similarly, the No Action Alternative would potentially affect cultural, surface water, or biological resources in the SVCSD, Novato SD, and Napa SD service areas. The four service areas would experience some level of beneficial socioeconomic impact under the three action alternatives, while there would be no impact under the No Action Alternative.

Although the level of environmental impacts related to construction impacts would be of a smaller scale compared to the proposed project, the No Action Alternative would not result in the level of potable offset for imported surface water, local surface water and groundwater supplies that would be provided under the Action Alternatives. Similarly, it would not substantially alter the amount of treated effluent discharged to tributaries to North San Pablo Bay. Over time, demand pressures on imported surface water, local surface water, and groundwater supplies would be increased, and current water supply and delivery reliability issues would be exacerbated as growth under the approved General Plans within the NBWRP service area occurs. The No Action Alternative would not take advantage of a local, sustainable, and energy efficient water supply.

Findings

The No Action Alternative would only minimally meet any of the project objectives, which are directed at improving water supply reliability, recharging groundwater, offsetting surface water demand, minimizing environmental impacts, achieving financial sustainability, and protecting human health. Because it would only minimally meet any of the project objectives, the No Action Alternative is infeasible.

4.3.3 Alternative 1: Basic System

The Basic System would expand recycled water programs currently in operation within the Member Agency service areas. It is the most localized of the three alternatives and emphasizes the implementation of local recycled water projects. Each agency would put first priority on the delivery of recycled water to its local projects. Local projects include the NMWD Urban Reuse Project, the SVRWP, the Napa Salt Marsh Pipeline, and projects in the Napa Milliken-Sarco-Tulucay (MST) Creeks area and the Carneros East areas. All WWTP treatment and distribution systems are sized and designed to serve their respective local users. Interconnectivity between WWTPs would only occur between SVCSD and Napa SD to serve the Napa Salt Marsh Restoration Area. The Basic System would include implementation of a system consisting of 83 miles of pipeline, construction of facilities onsite at existing WWTPs to provide an additional 7.8 million gallons per day (mgd) of tertiary treatment capacity, and development of 1,020 acre-feet of storage, primarily at existing or planned storage ponds at the WWTPs. In total, the Basic System would provide 6,655 acre-feet of new recycled water for irrigation use, and an additional 5,825 for habitat enhancement.

Relationship to the Project Objectives

The Basic System would be consistent with the Proposed Action's stated objectives, as it would provide recycled water for urban and agricultural potable offset, thereby increasing water supply reliability, would provide a sustainable supply for habitat enhancement at the Napa Salt Pond, would have secondary benefits to surface and groundwater supplies, and would focus on provision of recycled water to local service areas. From an economic standpoint, projected capital costs associated with the Basic System are estimated at $209 million[1], with annual operations and maintenance costs estimated a $1.8 million. This represents the lowest capital cost of the three action alternatives.

Environmental Impacts

Based on the comparison of environmental effects in the Draft EIR/EIS, the Basic System is the environmentally superior alternative in almost all resource areas. As noted in Section 6.3, there would be no direct significant and unavoidable impacts associated with the Basic System. Chapter 3 recommends measures to mitigate any significant impacts to a less-than-significant level. Effects on natural resources would be in proportion to the size and number of facilities proposed. Most of the adverse environmental impacts would be associated with construction activities; the Basic System requires construction of the least amount of infrastructure, therefore would result in less construction-related impacts. Of all of the action alternatives, the Basic System requires the least amount of storage, making use of existing storage or land available at the WWTPs. Implementing the larger recycled water distribution systems would require additional storage. However, the facilities proposed under the Basic System would have the lowest capacity to treat and distribute recycled water, and would therefore reduce the least

[1] Costs are shown in 2008 dollars. All costs were escalated to April 2008 dollars using the Building Cost Index. (CDM, 2008)

amount of discharge to the tributaries of North San Pablo Bay. Impact 5.1 would be applicable to the Basic Alternative.

Findings

The Basic System would achieve the project objectives with least environmental impacts and costs, although would not provide the benefits from increased connectivity that would occur under the Partially and Fully Connected Systems. The Basic System would have the capacity to provide recycled water to offset potable demand and improve water supply reliability, although to a lesser degree than the Partially Connected and Fully Connected Alternatives. The Basic System appears to best meet the stated objectives of the project, for the following reasons:

1) The Basic System provides offset for urban and agricultural demands on potable supplies, although not to the degree provided by the Partially Connected and Fully Connected Systems.

2) The Basic System includes the greatest provision of recycled water to Napa Salt Ponds, as well as secondary benefit to local surface and groundwater supplies;

3) The Basic System would improve local and regional water supply reliability, although not to the degree provided by the Partially Connected and Fully Connected Alternatives.

4) The Basic System would maintain and protect public health and safety, as would all of the alternatives. The No Project Alternative was actually rated highest, as it would not construct or operate any proposed facilities.

5) The Basic System would promote sustainable practices by providing recycled water, although not to the degree provided by the Partially Connected and Fully Connected Alternatives.

6) The Basic System is the most local of the alternatives, as no connections between WWTPs would be provided, with the exception of provision of recycled water to the Napa Salt Ponds. Therefore, the ability to "export" water from one service area to another is limited.

7) The Basic System is the least expensive of the alternatives considered, with the exception of the No Action and No Project Alternatives.

4.3.4 Alternative 2: Partially Connected System

The Partially Connected System represents the median alternative. Each agency would put first priority on the delivery of recycled water to its local projects. Additional local projects include the Peacock Gap Golf Course area, further development of the NMWD Urban Reuse Project, the SVRWP, and projects in Napa MST, and the Carneros East areas. Interconnectivity between WWTPs would be expanded between Novato SD and LGVSD to serve the Sear's Point Area, in addition to the connection between SVCSD and Napa SD WWTPs. The Partially Connected System would provide 11,250 AFY of new recycled water for irrigation use and an additional 2,933 AFY for habitat enhancement. Under this alternative, SVCSD would implement a system consisting of installation of 139 miles of new pipelines, construction of facilities onsite at the

existing WWTPs to provide 15.9 mgd of tertiary treatment capacity, and development of approximately 2,220 acre-feet of storage, primarily at existing or planned storage ponds at the WWTPs.

Relationship to the Project Objectives

The Partially Connected System would be consistent with the Proposed Action's stated objectives. It would expand regional interconnectivity, provide a greater amount of recycled water to offset potable demand, and provide greater amount of water for habitat restoration. From an economic perspective, the Partially Connected Alternative is moderately economically viable, as it represents the mid-range cost of the three action alternatives. Projected capital costs associated with the Partially Connected System are estimated at $377.5 million, with annual operations and maintenance costs estimated at $2.8 million.

Environmental Impacts

Based on the comparison of environmental effects, the Partially Connected System is not the environmentally superior alternative in any resource area. In most cases, the impacts for the Partially Connected System would be greater than the impacts under the Basic System. Although most significant impacts would be mitigated to a less-than-significant level, the Partially Connected System would require more infrastructure than the Basic System, and therefore result in more construction-related impacts. Impact 5.1 would be applicable to the Partially Connected System.

Findings

As noted in the Draft EIR/EIS, the Partially Connected Alternative has the capability to meet the majority of the project objectives, and may meet some of those objectives, such as provision of recycled water or reduction of discharge to San Pablo Bay, more fully than the proposed project. However, it would also result in substantial environmental impacts above and beyond those of the proposed project, would increase the overall cost of the project, and would not substantially reduce significant unavoidable impacts that cannot otherwise be mitigated. Therefore, it is not considered feasible or a desirable alternative to the proposed project.

4.3.5 Alternative 3: Fully Connected System

The Fully Connected System would maximize the local and regional reuse of recycled water, and incrementally, would have the greatest facility requirements of the three alternatives considered. It would include all of the components described under the Partially Connected System in addition to pipelines to extend service and connect all four WWTPs. The Fully Connected System requires a total of 153 miles of conveyance pipeline, construction of facilities onsite at the existing WWTPs to provide an additional 20.8 mgd of tertiary treatment capacity, and development of approximately 2,220 acre-feet of storage, primarily at existing or planned storage ponds at the WWTPs. The Fully Connected System would provide 12,761 AFY of new recycled water for irrigation use, and an additional 3,085 AFY for habitat enhancement.

Relationship to Project Objectives

The Fully Connected System would be consistent with the project objectives. By providing maximum recycled water, the Fully Connected Alternative would be capable of significantly offsetting potable demand and increasing water supply reliability, expanding regional interconnectivity, and supporting habitat restoration. From an economic perspective, the Fully Connected System would be beneficial to the regional economy, as discussed above. However, projected capital costs associated with the Fully Connected System are estimated at $414 million, with annual operations and maintenance costs estimated at $3.1 million. This represents the highest cost alternative, which is not the most economically viable alternative.

Environmental Impacts

Based on the comparison of environmental effects in Section 6.3, the Fully Connected System is the environmentally superior alternative in several impact areas. The Fully Connected System would reduce the maximum amount of discharge to the Bay, offset the maximum amount of groundwater pumping, and provide the maximum amount of recycled water use. Although, most of these benefits are related to water supply and water quality, the Fully Connected System could result in adverse impacts to existing drainage patterns and stormwater flow, as well as temporary construction-related impacts to water quality. Impact 5.1 would apply to the Fully Connected System.

Findings

As noted in the Draft EIR/EIS, the Fully Connected Alternative has the capability to meet the majority of the project objectives, and may meet some of those objectives, such as provision of recycled water or reduction of discharge to San Pablo Bay, more fully than the proposed project. However, it would also result in substantial environmental impacts above and beyond those of the proposed project, would increase the overall cost of the project, and would not substantially reduce significant unavoidable impacts that cannot otherwise be mitigated. Therefore, it is not considered feasible or a desirable alternative to the proposed project.

4.3.6 Importation of Water

Under this alternative, potable or treated recycled water would be imported to Sonoma, Napa, or Marin counties from another community not participating in the NBWRA, such as Windsor, Yountville, Petaluma, Rohnert Park, Vallejo or Santa Rosa. For recycled water importation, a pipeline would be constructed from a sanitation district of another community to the users in Sonoma, Napa, or Marin, with booster pump stations to maintain sufficient water pressure.

Even if water were imported from the nearest community, this alternative would require construction of a large conveyance pipeline network to serve the LGVSD, Novato SD, SVCSD, and Napa SD service areas. This alternative would require installation of a minimum of 50 miles of pipeline through a combination of roadways and undeveloped areas (ESA, 2006). This alternative was analyzed for the three criteria that were used to assess the alternatives of the project above.

For potable water importation into the region, expansion of the Department of Water Resources (DWR) North Bay Aqueduct (NBA), the capacity of which is fully allocated, would be necessary. This would also entail identification and acquisition of additional State Water Project (SWP) entitlements to serve additional supplies to the MST area, or other NBWRA service areas. For cost comparison, the Phase 3 Feasibility Study (CDM, 2008) included expansion of the NBA to provide 1,937 AFY of imported water to Napa MST area. Facility expansion would require a series of new pipeline alignments and booster pump station from Barker Slough. The cost of this type of system is estimated at $40 million, plus an additional $8 million in legal fee and bonding fees. Additional local cost beyond NBA expansion costs would include a new potable distribution system to the MST Area, and long-term water supply costs. Importation of SWP supplies to the MST area are estimated at approximately $96 million (CDM, 2008).

Relationship to Project Objectives

Importation of recycled water into the NBWRP service area would have the potential to meet some of the objectives, in that it would provide a recycled water supply to offset the use of potable supplies for irrigation. However, it is not anticipated that this alternative would provide a more sustainable or cost effective water supply, given the pipeline distances involved.

Fundamentally, this alternative would not offset potable supplies currently used for irrigation. Rather, they would continue to use imported potable supplies to meet irrigation demands. These alternatives would not reduce the amount of treated effluent discharge to tributaries of North San Pablo Bay, and would not provide a reliable habitat enhancement water supply for the Napa Salt Ponds. Additional importation of potable supplies would not improve the reliability to local water supplies, as SWP supplies are subject to drought year reliability.

Environmental Impacts

Importation of recycled water from an outside community would incur similar impacts as the alternatives of the project discussed above. Impacts associated with pipeline construction would include short-term impacts to aesthetics, air quality, biological resources, hazards and hazardous materials, water quality, land use, noise, public services and utilities, and traffic. Pipeline construction could also result in temporary and permanent disturbance to jurisdictional wetlands and other waters, riparian habitat, special-status plant and animal species, and known or unknown cultural resources.

This alternative would cause lesser impacts to surface hydrology and reduce groundwater pumping; however, these effects would occur outside the action area and would not address groundwater pumping issues within the action area in Sonoma, Napa, or Marin Counties. Importation of recycled water from an outside community would incur similar impacts as the alternatives of the project discussed above. Impacts associated with pipeline construction would include short-term impacts to aesthetics, air quality, biological resources, hazards and hazardous materials, water quality, land use, noise, public services and utilities, and traffic. Pipeline construction could also result in temporary and permanent disturbance to jurisdictional wetlands

and other waters, riparian habitat, special-status plant and animal species, and known or unknown cultural resources.

Under this alternative, the Member Agencies would face the institutional constraints of developing an agreement to obtain either recycled water or potable water supplies, prepare the cost estimates associated with purchase of the water, the costs of constructing new distribution infrastructure. Importing water from outside communities to individual service areas could require pipelines in excess of what would be required to develop connections between the four Member Agencies. Facility expansion would require a series of new pipeline alignments and booster pump station from Barker Slough. The cost of this type of system is estimated at $40 million, plus an additional $8 million in legal fee and bonding fees. Additional local cost beyond NBA expansion costs would include a new potable distribution system to the MST Area, and long-term water supply costs. Importation of SWP supplies to the MST area are estimated at approximately $96 million (CDM, 2008). Expansion of the NBA for this cost would only meet the needs of one of the NBWRP service areas.

Findings

This alternative would not substantially meet the project objectives, would also result in substantial environmental impacts above and beyond those of the proposed project, would increase the overall cost of the project, and would not substantially reduce significant unavoidable impacts that cannot otherwise be mitigated. Therefore, it is not considered feasible or a desirable alternative to the proposed project.

4.3.7 Desalination

Desalination of saline water from San Pablo Bay would provide a reliable supply of water for irrigation. Currently, reverse osmosis (RO) treatment is the most cost-effective and feasible treatment option for desalination. The desalination plant could be sized and operated to provide a continuous source of supply. Due to the higher salinity of the source water and depending upon the efficacy of the RO process, the high salinity (~35,000 milligrams per liter of total dissolved solids), a flow of 5,500 AF of source water would produce approximately 2,750 AF of desalinated water.[2] As such, higher feed pressure and need to increase the treatment capacity would result in a high electric power requirement.

Desalination has been previously proposed for both Marin and Sonoma counties. The Marin Municipal Water District has developed a desalination project that would serve the City of San Rafael and Marin County. Construction of a 5-mgd desalination plant is proposed, and capacity could be expanded in 5 mgd increments, up to a maximum capacity of 15 mgd. The source water from San Rafael Bay would undergo several treatment processes at the facility including solid removal, reverse osmosis, and disinfection and addition of materials for taste. The potable product water generated at the facility would be 50 percent of the source water flowing into the facility. The

[2] Assuming 50 percent efficacy, the RO process would generate 50 percent desalinated water of the source water.

brine produced in the reverse osmosis process would be blended with treated wastewater prior to discharge into the Bay. The solids would be disposed in the Redwood Landfill.

In Sonoma County, the desalination alternative would provide desalination of seawater to provide water supply for irrigation. The desalinated water would require blending with either recycled water or groundwater at the SVCSD WWTP prior to irrigation use. One option would be to size the plant to supply 2,750 AFY to the Sonoma Valley during irrigation months. Another option is a regional desalination plant that would provide irrigation as well as augmenting drinking water supplies for both the City of Sonoma and unincorporated areas of Sonoma County. The project would consist of an RO plant, an onshore pumping station and chemical treatment unit, a seawater intake structure, an onshore/offshore seawater supply pipeline between the onshore pump station and offshore seawater intake, pipelines to transport seawater and chemicals between the desalination plant and onshore pump station/chemical treatment area, and a pipeline to transport concentrated seawater brine from the desalination plant site to an ocean outfall. A desalination project could also require construction of a power substation (ESA, 2006).

Ability to Meet Project Objectives

This alternative would have the potential to meet some of the project's stated project objectives. However, desalination would not meet project objectives to provide a reliable regional and local supply for habitat enhancement, would increase discharges to San Pablo Bay related to brine disposal, and is not considered as sustainable a supply as recycled water due to power consumption associated with desalination processes.

Environmental Impacts

The desalination alternative (MMWD proposed plant) is more cost-effective than the three action alternatives, but does not satisfy stated project objectives. The environmental impacts associated with the desalination alternative would occur during construction of the project facilities similar to other alternatives. Construction activities would include construction of the RO plant, pipeline, and rebuilding the pier. Environmental impacts to aesthetics, ambient noise, and water quality are typically associated with desalination facilities.

Long-term effects would include water quality impacts from the discharge of the brine generated by the desalination process. The discharge would be dispersed by currents in San Pablo Bay, affecting temperature, nutrients, and turbidity and, therefore, the abundance and diversity of marine organisms. Areas of potential concern in relation to oceanography and marine water quality include temperature, dissolved oxygen, or salinity; possible localized changes in currents or in turbidity, due to the presence of intake pipes on the ocean bottom or due to the pumping/discharge of effluents from the desalination plant; and possible changes in dispersion of sewage plume effluent due to added discharge of brine effluent from the desalination plant. As such, a desalination project would require a baseline study to establish offshore conditions prior to desalination plant startup; and perform quarterly marine water quality/biological monitoring in accordance with the San Francisco Bay Regional Water Quality Control Board requirements during operational phase (ESA, 2006). Implementation of a desalination plant would also require

construction of new facilities, which would incur construction-related impacts similar to those anticipated under the Proposed Action; therefore the desalination alternative would have a similar level of temporary environmental impact when compared to the three action alternatives.

The capital costs and operations and maintenance costs could be prohibitive: the estimated capital cost of the MMWD plant is estimated at $121.1 million, with annual operations and maintenance costs as high as $7.1 million. When compared to the proposed Basic System, a desalination plant would be more cost-effective[3], but the project may be ineligible for federal funding. Further, there are high energy costs associated with this alternative in addition to the costs for land acquisition, construction of seawater intake and potentially a brine water discharge line and brine water outfall. In addition, considering the extremely high cost for desalination, coupled with its greater dependency on large quantities of power, this alternative was not carried forward for further analysis.

Findings

Because this alternative would not substantially meet the project objectives, would also result in substantial environmental impacts above and beyond those of the proposed project, would increase the overall cost of the project, and would not substantially reduce significant unavoidable impacts that cannot otherwise be mitigated. Therefore, it is not considered feasible or a desirable alternative to the proposed project.

4.4 Environmentally Superior Project Alternative

The lead agency is not required by CEQA to adopt an environmentally superior alternative that will not feasibly attain project objectives or reduce environmental effects. In the process of selecting the environmentally superior alternative, NBWRA has evaluated several factors, including environmental effects, engineering and operational criteria, system reliability and flexibility, cost, and efficient coordination with other water recycling efforts, in determining which alternative is the best project to approve and implement.

The Basic System has been identified as the most environmentally, equitably, and financially sustainable alternative that will effectively fulfill the project objectives. The Basic System would provide adequate conveyance, pumping, and storage capacity that would result in 6,655 AFY of recycled water, therefore offsetting a substantial amount of potable demand and reducing wastewater discharge to San Pablo Bay. The Basic System would achieve the project objectives with least environmental impacts and costs, although would not provide the benefits from increased connectivity that would occur under the Partially and Fully Connected Systems. The Basic System would have the capacity to provide recycled water to offset potable demand and improve water supply reliability, although to a lesser degree than the Partially Connected and Fully Connected Alternatives. The Basic System best meets the stated objectives of the project, for the following reasons:

[3] Cost-effectiveness is based on the cost per AFY, calculated using estimated total AFY and costs.

1) The Basic System provides offset for urban and agricultural demands on potable supplies, although not to the degree provided by the Partially Connected and Fully Connected Systems.

2) The Basic System includes the greatest provision of recycled water to Napa Salt Ponds, as well as secondary benefit to local surface and groundwater supplies;

3) The Basic System would improve local and regional water supply reliability, although not to the degree provided by the Partially Connected and Fully Connected Alternatives.

4) The Basic System would maintain and protect public health and safety, as would all of the alternatives. The No Project Alternative was actually rated highest, as it would not construct or operate any proposed facilities.

5) The Basic System would promote sustainable practices by providing recycled water, although not to the degree provided by the Partially Connected and Fully Connected Alternatives.

6) The Basic System is the most local of the alternatives, as no connections between WWTPs would be provided, with the exception of provision of recycled water to the Napa Salt Ponds. Therefore, the ability to "export" water from one service area to another is limited.

7) The Basic System is the least expensive of the alternatives considered, with the exception of the No Action and No Project Alternatives.

The Basic System would provide some connectivity between service areas with a major emphasis on local water use. Water reuse would provide environmental benefits by offsetting surface and groundwater use, reducing the need to develop additional water supplies, and reducing discharge to the Bay. Although an incrementally smaller amount of recycled water would be available, it would represent an economically feasible alternative. Implementing the Basic System would cost 80 percent less than the Partially Connected System, and 200 percent less than the Fully Connected System (CDM, 2008). Since the Basic System would represent the lower cost alternative and would be implemented through federal and state funding options, it is the most cost-effective for the Member Agencies and their rate payers. The Basic System would require the least amount of new storage and relies on the use of existing facilities by rehabilitating reservoirs and using ponds at the WWTPs.

Compared to the Basic System, the Partially and Fully Connected Systems would increase regional connectivity and provide incrementally more recycled water treatment and distribution facilities, albeit with greater costs for greater costs for the Member Agencies, construction impacts, and greater potential for conflict with natural resources. Therefore, the Partially and Fully Connected Systems are not the most environmentally superior alternatives (see Table 6-13).

In general, all the three proposed alternatives would meet the stated project objectives and comply with applicable regulations and policies. In relation to the stated project objectives and environmental impacts, the Fully Connected System would involve the greatest capital costs and maximum adverse environmental impacts due to the proportion of facilities that would be required. The benefit of reducing the amount of wastewater discharged to the Bay is

counterbalanced by the detriment caused during construction and facility operation; therefore, the Fully Connected System is not considered environmentally superior.

In general, the Partially Connected System represents the middle ground between the Basic System and the Fully Connected System, balancing the potential environmental impacts, implementation costs, and risk issues associated with the alternatives. In comparison, the Partially Connected System would cause greater environmental impacts than the Basic System, and would cause impacts similar to the Fully Connected System. The Partially Connected System could fulfill the objectives to improve water supply reliability and offset potable demand to a higher degree than the Basic System, however the Partially Connected System would not necessarily be the most financially or environmentally sustainable option, due to increased infrastructure requirements.

Based on the criteria set previously in the chapter for alternatives analysis, with respect to their ability to meet the stated project objectives, their potential environmental impacts, and the cost of implementation, it was determined that the Basic System is identified as the environmentally superior alternative. Of the action alternatives, the Basic System would achieve the project objectives, result in lesser environmental impacts, and would incur lower costs. The Basic System would thus achieve all of the project objectives while simultaneously providing a means for Member Agencies to achieve water management goals, meet future water demand, augment surface water use, and sustain environmental and water quality.

References

Camp Dresser McKee, Inc. (CDM), *Phase 3 Engineering and Economic/ Financial Analysis Report*, June 2008.

Environmental Science Associates, *Sonoma Valley Recycled Water Project, Environmental Impact Report,* 2006.

CHAPTER 6
Statement of Overriding Considerations

6.1 Summary of Overriding Considerations

Section 15093 of the CEQA Guidelines establishes the following requirements for a Statement of Overriding Considerations:

(a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. 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."

(b) When the decision of the public agency allows the occurrence of significant effects that are identified in the Final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. This statement may be necessary if the agency also makes a finding under Section 15091(a)(2) or (a)(3).

(c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination.

Pursuant to Public Resources Code Section 21081 and CEQA Guidelines Section 15093, North Marin Water District) adopts and makes the following Statement of Overriding Considerations regarding the remaining unavoidable impacts from the Novato North Service Area and Novato Central Service Area Projects, which are a part of Phase 1 of the North Bay Water Recycling Program, and the anticipated economic, legal, social, technological, environmental, and other benefits.

In considering the proposed project, NMWD has weighed the benefits of the NBWRP against its unavoidable environmental risks and potentially significant adverse impacts. NMWD hereby determines that the benefits of the NBWRP outweigh its unavoidable environmental risks and unmitigated adverse impacts. NMWD finds that to the extent that the identified significant or potentially significant adverse impacts have not been avoided or substantially lessened, there are specific economic, legal, social, technological or other considerations that support approval of NBWRP.

6.2 Adoption of Overriding Considerations

NMWD specifically adopts this Statement of Overriding Considerations and finds that: a) as part of the approval provisions, the Proposed Project has eliminated or substantially lessened all significant effects on the environment where feasible; b) the remaining unavoidable impacts of the Proposed Project are acceptable in light of the environmental, economic, legal, social, technological, and other considerations set forth herein, because the benefits of the NBWRP outweigh the significant and adverse impacts of the NBWRP, as noted below.

NMWD finds that each of the overriding considerations set forth below constitutes a separate and independent ground for finding that the benefits of the NBWRP outweigh its significant adverse environmental impacts and is an overriding consideration warranting approval of the NBWRP. NWMD finds that substantial evidence in the record supports its findings in this regard.

6.3 Unavoidable Environmental Risks of Proposed Project

The NBWRP will have certain significant effects that are identified in the Final EIR/EIS but will not be fully mitigated. These effects include secondary impacts related to the implementation of approved General Plans within the NMWD service area, such as conflicts with agricultural land use or other existing land uses, permanent loss of sensitive species or habitat, alteration of drainage patterns, impacts to water supply and water quality within unincorporated Marin County; and displacement of wetlands, operation of highways at unacceptable levels of service, and increased emergency service demand and impacts to emergency service response time within the City of Novato. as well as also described in Chapter 5, Growth Inducing Effects and Secondary Effects of Growth, of the Draft EIR/EIS. The project has been modified to provide a level of recycled water supply consistent with the assumptions of the approved *Marin County General Plan,* and the *City of Novato General Plan*. As previously noted, some of these impacts will be reduced by identified mitigation measures, but the impacts may not be reduced to a less than significant level.

E.3 Benefits of Proposed Project

Phase 1 Implementation Plan- Novato North Service Area, and Novato Central Service Area Projects

The NMWD Board of Directors has carefully considered the NBWRP described in the EIR/EIS and the unavoidable adverse environmental impacts associated with it and hereby identifies the following environmental, economic, legal, social, technological, and other benefits of the project:

1. Implementing the Proposed Project would provide potable offset of urban and agricultural demands on potable supplies, including surface and groundwater supplies.

2. Implementation of the Proposed Project would reduce the amount of treated effluent discharged to North San Pablo Bay.

3. Implementation of the Proposed Project would be consistent with State and local policies regarding the implementation of recycled water to provide potable water supply offset.

4. Implementation of the Proposed Project would be consistent with recycled water polices identified in approved General Plans within the proposed service area.

5. Implementing the Proposed Project would reduce peak demand for water in the summer months. Reducing peak demand will benefit other users of water in the summer months, including threatened and endangered species.

6. The proposed project will be implemented under Reclamation's Title XIV program, which provides funding for recycled water programs that have demonstrated regional coordination and provide multiple benefits.

The NMWD Board of Directors has weighed the above benefits of the project against its unavoidable environmental risks and the adverse environmental effects that are described in the Final EIR/EIS and hereby determines that the above benefits outweigh the risks and adverse effects. The Board of Supervisors, therefore, determines that these risks and adverse environmental effects are acceptable.