

Notice of Determination

ENDORSED
FILED
ALAMEDA COUNTY

AUG 17 2006

To: ☒ Office of Planning and Research
P.O. Box 3044
Sacramento, CA 95814

From: (Public Agency) Zone 7 Water Agency
100 North Canyons Parkway, Livermore, CA 94551
Address

☒ County Clerk
County of Alameda County
1106 Madison St., Oakland, CA 94612

Subject: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

NOTE TO COUNTY CLERK: Pursuant to Section 21152 of the Public Resources Code, the County Clerk shall post notices within 24 hours of receipt in the office of the County Clerk. A notice shall remain posted for a period of 30 days. Upon expiration of this posting period, the clerk shall return the notice to the lead agency's contact person with a notation certifying the notice was posted for the prescribed period of law.

Project Title:

Zone 7 Mocho Groundwater Demineralization Project

<u>2006022139</u>	<u>Jarnail Chahal</u>	<u>925-454-5027</u>
State Clearinghouse Number (If submitted to Clearinghouse)	Lead Agency Contact Person	Area Code/Telephone/Extension

Project Location (include county)

Pleasanton, Alameda County

Project Description: The proposed project consists of construction and operation of a 7.7 mgd demineralization facility, which would be located adjacent to Arroyo Mocho off Stoneridge Drive and Santa Rita Road in the city of Pleasanton, California. The facility would treat potable water supplies from existing wells in the vicinity. Operation of the proposed facility would consist of demineralization or reverse osmosis treatment of source or raw water from the water wells. Reverse osmosis (RO) is a physical separation process, in which water is pressurized and passed through a semi-permeable membrane. Molecular constituents (i.e., calcium, magnesium, sodium, etc.) larger than the molecular pore size of the membrane do not pass through, and exit the membrane system as concentrate. Demineralized water molecules pass through the membrane and exit the system as permeate or product. Demineralization would occur through the use of an RO membrane-based treatment, producing permeate water and concentrate. Zone 7 would blend permeate with other groundwater (non-demineralized) and/or surface water before delivery to achieve a target total dissolved solids or hardness level. The concentrate resulting from the RO process would be discharged into San Francisco Bay via the existing Dublin San Ramon Services District (DSRSD) pipelines, the Clean Water Revival (CWR) pipeline, and the Livermore Valley Water Management Agency (LAVWMA) pipeline. The LAVWMA pipeline connects to the existing East Bay Dischargers Authority (EBDA) outfall into the Bay.

This is to advise that the Zone 7 Water Agency has approved the above described project on
☒ Lead Agency ☐ Responsible Agency

August 16, 2006 and has made the following determinations regarding the above described projects.
(Date)

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a conditions of the approval of the project.
4. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.

Date Received for Filing
at OPR: _____

Dale Myers 8-16-2006
Signature Date
General Manager
Title

Form 4. Environmental Declaration

*ENVIRONMENTAL DECLARATION

(Calif. Fish and Game Code Sec. 711.4)

NAME AND ADDRESS OF APPLICANT OR LEAD AGENCY:

Zone 7 Alameda County Flood Control and
Water Conservation District
100 North Canyons Parkway
Livermore, CA 94551

Attn: Jarnail Chahal

FOR COURT USE ONLY

**ENDORSED
FILED
ALAMEDA COUNTY**

AUG 17 2006

PATRICK O'CONNELL County Clerk
By *[Signature]* Deputy

FILING NO.

06-533

CLASSIFICATION OF ENVIRONMENTAL DOCUMENT:

1. NOTICE OF EXEMPTION/STATEMENT OF EXEMPTION PLU117
☐ A—STATUTORILY OR CATEGORICALLY EXEMPT
\$25.00 (Twenty-Five Dollars) – CLERK's FEE
☐ B—DE MINIMUS IMPACT – CERTIFICATE OF FEE EXEMPTION REQUIRED PLU 117
\$25.00 (Twenty-Five Dollars) – CLERK's FEE
2. NOTICE OF DETERMINATION – FEE REQUIRED
☒ A—NEGATIVE DECLARATION PLU 116
\$1,250.00 (Twelve Hundred Fifty Dollars) – STATE FILING FEE
\$25.00 (Twenty-Five Dollars) – CLERK's FEE
☐ B—ENVIRONMENTAL IMPACT REPORT PLU 115
\$850.00 (Eight Hundred Fifty Dollars) – STATE FILING FEE
\$25.00 (Twenty-Five Dollars) – CLERK's FEE
3. ☐ OTHER (Specify) _____ PLU117
\$25.00 (Twenty-Five Dollars) – CLERK's FEE

* THIS FORM MUST BE COMPLETED AND SUBMITTED WITH ALL ENVIRONMENTAL DOCUMENTS
FILED WITH THE ALAMEDA COUNTY CLERK'S OFFICE.

FIVE COPIES OF ALL NECESSARY DOCUMENTATION ARE REQUIRED FOR FILING PURPOSES.

APPLICABLE FEES MUST BE PAID AT THE TIME OF FILING AN ENVIRONMENTAL DOCUMENT WITH
THE ALAMEDA COUNTY CLERK'S OFFICE.

NOTE TO COUNTY CLERK: PURSUANT TO SECTION 21152 OF THE PUBLIC RESOURCES CODE, THE
COUNTY CLERK SHALL POST NOTICES WITHIN 24 HOURS OF RECEIPT IN THE OFFICE OF THE
COUNTY CLERK. A NOTICE SHALL REMAIN POSTED FOR A PERIOD OF 30 DAYS. UPON
EXPIRATION OF THIS PERIOD, THE CLERK SHALL RETURN THE NOTICE TO THE LEAD AGENCY'S
CONTACT PERSON WITH A NOTATION CERTIFYING THE NOTICE WAS POSTED FOR THE
PRESCRIBED PERIOD BY LAW.

MAKE CHECK PAYABLE TO: ALAMEDA COUNTY CLERK

memorandum

date August 1, 2006

to Zone 7 Water Agency

from Environmental Science Associates

subject Response to Comments on the Draft Initial Study/Mitigated Negative Declaration for the Zone 7 Mocho Groundwater Demineralization Project

INTRODUCTION

This memorandum has been prepared to respond to comments received by Zone 7 Water Agency (Zone 7) on the Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) for the Zone 7 Mocho Groundwater Demineralization Project (proposed project). An IS/MND is an informational document prepared by a Lead Agency, in this case, Zone 7, that provides environmental analysis for public review and for the agency decision-makers to consider before taking discretionary actions related to any proposed project that could have a significant effect on the environment. The Draft IS/MND analyzed the impacts resulting from the proposed project and where applicable, identified mitigation measures to minimize the impacts to less-than-significant level. Therefore, the Zone 7 Board of Directors is proceeding to adopt the IS/MND for the project.

Prior to the approval of the proposed project, the Zone 7 Board of Directors must certify that the Draft IS/MND adequately discloses the environmental effects of the proposed project, and that the IS/MND is the appropriate environmental document for the proposed project and has been completed in conformance with the California Environmental Quality Act (CEQA).

This memorandum for the Zone 7 Mocho Groundwater Demineralization Project Draft IS/MND presents:

- The name of the person and organization commenting on the Draft IS/MND and
- Responses to the received comments.

This memorandum, in combination with the Draft IS/MND, completes the Final IS/MND.

CEQA PROCESS

In accordance with Section 15073 of the CEQA Guidelines, Zone 7 submitted the Draft IS/MND to the State Clearinghouse for a 30-day public review period starting on February 27, 2006. In addition, Zone 7 circulated a Notice of Intent to Adopt the Draft IS/MND to interested agencies and individuals. The public review period ended on March 29, 2006. During the public review period, Zone 7 received three comment letters on the Draft

IS/MND. Table 1 lists the entities that submitted comments on the Draft IS/MND during the public review and comment period. The comment letters are attached.

TABLE 1
PERSONS COMMENTING ON DRAFT IS/MND

Comments Received from	Commentor's Affiliation	Date Received
Michael Grossman	None	March 7, 2006 (dated March 5, 2006)
Charles V. Weir	East Bay Dischargers Authority	Dated March 22, 2006
David A. Requa	Dublin San Ramon Services District	Dated March 29, 2006

In accordance with CEQA Guidelines Section 15074(b), the Zone 7 Board of Directors considers the Draft IS/MND together with comments received during the public review process prior to adopting the Final IS/MND and approving the project. The CEQA Guidelines do not require the preparation of a response to comments document. However, to assist the Zone 7 Board in considering the comments that were received on the project and identifying potential significant effects not already evaluated in the Draft IS/MND, Zone 7 has prepared this memorandum in response to comments received. Based on the review of the comments received, no new, potentially significant impacts beyond those identified in the Draft IS/MND would occur. All potential impacts identified in the Draft IS/MND were determined to be either less-than-significant or less-than-significant with mitigation.

COMMENTS

Michael Grossman

Mr. Grossman noted questions on whether the project would affect water seepage, ground erosion, ground destabilization, pump leaking, and flooding and what security measures would be implemented to protect the facility.

Response: As discussed in Section VIII, Hydrology and Water Quality, in Chapter 2 of the IS/MND the effects of the proposed project on ground erosion and water seepage would be less than significant. The project site is located on a site that is currently graded and developed with Zone 7 facilities. As the proposed construction would exceed one acre, Zone 7 would conform to the requirements of the National Pollutant Discharge Elimination System (NPDES) General Construction Activity Permit, which requires a stormwater pollution prevention plan (SWPPP) to be prepared and implemented. The SWPPP establishes best management practices (BMPs) for stormwater pollution control. In addition, the proposed project would adhere to the NPDES Municipal Stormwater Permit to ensure that stormwater pollution during the life of the project would be at a minimum by implementing measures such as keeping the impervious area including pavement at the site at a minimum and constructing stormwater bio-swales (as per the Grass Swale Design guidelines provided by the City of Pleasanton) along the north and east portions of the site. The swales would collect stormwater runoff and transport the water to a catch basin for discharge into the Arroyo Mocho. Implementation of such measures would ensure that the impact would be minimal.

As discussed in Section VI, Geology and Soils, in Chapter 2 of the IS/MND, ground destabilization is discussed under groundshaking, seismic activity, soil liquefaction, and landslides in the project area. Since the project site is located over seven miles to the east of this fault, the potential of exposure of people or structures to fault rupture due to the project is very low. Because the project does not propose habitable structures, the potential for groundshaking impacts associated with the risk of loss, injury, or death would be considered a less-than-significant impact. According to Association of Bay Area Government's Liquefaction Susceptibility in the Bay Area Map, liquefaction in the vicinity of the project site is considered high. However, implementation of Measure GEO-1 (listed below) would ensure that potential impacts relating to liquefaction would be reduced to a less-than-significant level.

Measure GEO-1: Zone 7 will conduct a geotechnical study of the project site to determine appropriate construction methods and foundation design. The study will focus on seismic hazards and expansive soils. The project design will comply with the recommendations of the study, the latest version of the Uniform Building Code and the American Water Works Association design guidelines for seismically active areas.

The impact would be less-than-significant with mitigation.

As further noted in Section VI, Geology and Soils, saturated soil on slopes causes landslides. The topography of the project site is flat. Due to the lack of topographic relief in the vicinity of the project site, potential impacts associated with landslide hazard would be less than significant.

The commenter refers to potential effects from "pump leaking". Impacts from potential chemical leakages are discussed in Section VII, Hazardous Materials, in Chapter 2 of the IS/MND. As noted, spills during on-site fueling of equipment or an upset condition (e.g., puncture of a fuel tank through operator error) could result in a release of fuel or oils into the environment. Implementation of Measures HM-1 through HM-5 (listed below), which requires incorporation of hazardous materials management, spill prevention, and spill response/cleanup measures in contractor specifications, would reduce impacts from hazardous materials release to a less-than-significant level.

Operation of the demineralization facility would require storage and handling of chemicals used in the water treatment processes. Chemicals are currently stored at the project site. The proposed project would result in an increase in quantities of the chemicals stored onsite. However, containment and other spill control measures would be implemented to prevent and control any spills (see Measures HM-1 through HM-5). All storage and use of hazardous materials would be in accordance with Uniform Fire Code and (California Occupational Safety and Health Administration [Cal/OSHA]) requirements for chemical storage, including secondary containment for all storage facilities. Hazardous materials storage, handling and disposal would be in conformance with Zone 7's most recent Hazardous Materials Business Plan. Therefore, leaking of chemicals is highly unlikely. In the event of inadvertent spills, the impacts would be less-than-significant with mitigation.

As noted Section VIII, Hydrology and Water Quality, in Chapter 2 of the IS/MND, the proposed facility would not include permanent occupation, would not lie within a 100-year floodplain, and would not contribute to the potential for dam failure, therefore no impact from flooding is expected.

The facility will be protected by security measures typical for a water treatment facility. Security measures incorporated into design include 6-foot site fencing, security lighting, and security alarms.

Dublin San Ramon Services District (DSRSD): Letter from David A. Requa

Mr. Requa, on behalf of the DSRSD, found the Draft IS/MND to be complete and factually correct. Mr. Requa encouraged Zone 7 to select the option of routing the RO concentrate into the Livermore Amador Valley Water Management Agency (LAVWMA) system at the west end of the valley combined with the DSRSD waste water discharge under the terms of an industrial waste permit. Mr. Requa also listed environmental and regulatory benefits for this option over other options.

Response: The comment is noted and accepted. As indicated in Chapter 1 of the Draft IS/MND, Zone 7 was originally considering three alternatives for discharging the RO concentrate. The alternative noted in Mr. Requa's letter is listed as "Option 3" in the Draft IS/MND. As originally discussed in the Draft IS/MND, Options 1 and 3 are the preferred routing options. Zone 7 will select Option 3 as the preferred alternative.

East Bay Dischargers Authority (EBDA): Letter from Charles V. Weir

Mr. Weir notes that EBDA has significant concerns that must be resolved before EBDA can fully support the proposed project. The concerns are as follows:

- The Draft IS/MND fails to comply with EBDA's brine policy and does not address the issue of the requirement to enter into an agreement with EBDA. EBDA approved a three-way agreement with Zone 7 and LAVWMA on January 26, 2006 and sent the agreement to Zone 7 and LAVWMA. There was no response from either agency.
- The Draft IS/MND does not address comments submitted by EBDA on August 12, 2005. In addition, likely requirements for EBDA's NPDES permit have changed since the IS/MND was released, therefore would need to be updated.
- One key to the success of Zone 7's project is the willingness and ability of EBDA to maintain the compliance point for NPDES permit purposes at the combined effluent. The three-way agreement mentioned above would provide EBDA with the legal means to ensure compliance with current and future NPDES permit requirements. To avoid applying for a separate NPDES permit and the resulting delay in implementing the proposed project, it is in the best interest of all the parties to have Zone 7 and LAVWMA approve the agreement.

Response: The comments are noted. The preferred alternative selected by Zone 7 would be to discharge into the LAVWMA system through the DSRSD system. As such, an agreement including LAVWMA (rather than DSRSD) would be inappropriate as the RO concentrate would be discharged directly to the DSRSD system. As stated under Operational Agreements in Chapter 1, Project Description of the IS/MND, based on the selected alternative, Zone 7 will enter into a pre-treatment industrial discharge permitting agreement with DSRSD and, as recognized on page 1-20 of the IS/MND, Zone 7 may also enter into an additional agreement, as necessary, with EBDA.

MITIGATION MONITORING AND REPORTING PROGRAM – MOCHO GROUNDWATER DEMINERALIZATION PLANT PROJECT

Introduction

Zone 7 Water Agency (Zone 7) proposes to construct and operate a 7.7 million gallon per day (mgd) groundwater demineralization plant, which would be located adjacent to Arroyo Mocho off Stoneridge Drive and Santa Rita Road in the city of Pleasanton, California. The facility would treat potable water supplies from existing wells in the vicinity. Operation of the proposed facility would consist of demineralization or reverse osmosis treatment of source or raw water from the water wells. A Mitigated Negative Declaration (MND) was prepared for the proposed project in compliance with Section 15070 of the California Environmental Quality Act (CEQA) Guidelines of 1970 (as amended), and California Administrative Code, Title 14, Division 6, Chapter 3. The MND is an informational document that provides environmental analysis for public review and for agency decision-makers to consider before taking discretionary actions related to any proposed project that could have a significant effect on the environment. With the incorporation of measures modifying project construction and operating characteristics, the MND identified no potentially significant impacts from the proposed project. Therefore, Zone 7 proposes to adopt the MND for the project.

Mitigation Monitoring and Reporting Program

This document provides a Mitigation Monitoring and Reporting Program (MMRP) that is organized in a tabular format, keyed to each significant impact with each mitigation measure incorporated into the project. This chapter summarizes the mitigation measures that would be integrated into the project and would be adequate to reduce the potentially significant impacts to a less-than-significant level.

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 will 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 lists a general schedule for conducting each monitoring and reporting task, identifying where appropriate both the timing and the frequency of the action.

The MMRP thus provides the mitigation measures discussed in the MND, which would be implemented as listed in the tables for the specific environmental resource.

Aesthetics

Measure AES-1: In the event tree removal is required, Zone 7 shall review tree status relative to the City of Pleasanton Heritage Tree Ordinance, and shall acquire a permit as appropriate.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 contracts with arborist to review tree status	1. Zone 7 contract entered into administrative record	1. Zone 7	1. During design
2. Zone submits permit application to City for removal	2. Zone 7 receives permit	2. Zone 7	2. Prior to construction

Measure AES-2: Zone 7 shall provide facility plans to DSRSD and the City of Pleasanton at appropriate design phase to provide an opportunity for review and comment.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 submits Architectural and Landscape Plans to the DSRSD and City of Pleasanton for review.	1. Zone 7 receives DSRSD land use agreement and City of Pleasanton comments.	1. Zone 7	1. 30% design phase
2. Architect, at Zone 7's authorization, incorporates the City's comments in next design submittal	2. Zone 7 receives next design submittal	2. Zone 7	2. Prior to construction

Measure AES-3: Zone 7 shall ensure that all permanent exterior lighting is directed downward and oriented to insure that diffused light does not affect surrounding properties. In addition, highly reflective building materials and/or finishes shall not be used in the designs for proposed structures.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes lighting requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor installs lighting per construction specifications.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Air Quality

Measure AQ-1: Zone 7 or its contractors shall implement dust control measures to reduce fugitive dust generation during construction activities. At a minimum, contractor(s) shall be required to implement the following measures¹:

- Water the construction site (with active excavation) including stockpiles (dirt, sand, etc.) at least twice daily. Stockpiles may be covered or non-toxic soil binders may be applied instead of watering.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. Tailgates of trucks shall be sealed.
- Sweep Stoneridge Drive daily with water sweepers during earthwork activities.
- Internal combustion engines shall be equipped with adequate mufflers.
- Excessive idling of vehicles shall be prohibited.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes dust control measures in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure AQ-2: Proposed facilities shall be designed to operate in compliance with applicable BAAQMD permit requirements and regulations. Zone 7 will review emission information with BAAQMD during permitting of the facility, and will apply BACTs, as appropriate.

¹ Control measures for construction emissions of PM-10 were adapted from BAAQMD's CEQA Guidelines for Assessing the Air Quality Impact of Projects and Plans.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes BAAQMD permit requirements and regulations in project design.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements design requirements and BACTs.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Biological Resources

Measure BIO-1: Zone 7 shall review the final blending pipeline alignment plan with CDFG to establish whether pipeline installation would be subject to a Section 1600 Streambed Alteration Agreement. In the event, CDFG indicates that the pipeline route is within its jurisdiction, Zone 7 shall obtain appropriate permits prior to pipeline installation. All areas within the Arroyo Mocho flood control channel that are disturbed during pipeline installation shall be restored to their pre-project condition.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 shall review final pipeline alignment with CDFG to determine jurisdiction.	1. Zone 7 send pipeline route and request to CDFG	1. Zone 7	1. Prior to construction
2. Zone 7 shall acquire appropriate permits as determined by CDFG	2. Zone 7 prepares and submits appropriate permit application, most likely Streambed Alteration Agreement	2. Zone 7	2. Prior to construction
3. Zone 7 implements construction under permit conditions	3. Sign-off by Zone 7 that measures contained in permit are being implemented	3. Zone 7	3. During construction
4. Zone 7 ensures contractor restored disturbed areas to pre-project conditions.	4. Sign-off by Zone 7 that disturbed areas restored.	4. Zone 7	4. Following Construction

Measure BIO-2: Avoid construction, including pruning or tree removal, during the nesting season (March 1 through August 15). If this is not feasible, a general survey for raptors and other breeding birds, as well as their nests, shall be conducted by a qualified biologist before construction to verify the absence of breeding birds. If the survey indicates the presence of nesting raptors or other protected birds, construction would be delayed until after nestlings have fledged.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 shall contract with a qualified biologist to conduct a pre-construction survey if during the nesting season.	1. Zone 7 executes contract	1. Zone 7	1. Prior to construction
2. Zone 7 shall include potential work limitations in construction specifications.	2. Zone 7 reviews construction specifications.	2. Zone 7	2. Prior to construction
3. If nesting raptors are found biologist shall identify appropriate actions to avoid effects.	3. Sign-off by Zone 7 that measures are being implemented.	3. Zone 7	3. During construction

Cultural Resources

Measure CR-1: A qualified archaeologist, certified by the Registry of Professional Archeologists, shall be available if necessary, during all ground disturbing activities. If the contractor encounters cultural resources during construction, the contractor shall avoid any further disturbance of the materials and immediately discontinue earthwork within 100 feet of the find. The qualified archaeologist shall monitor and evaluate the significance of the find in accordance with accepted practices. Depending on the nature of the find, whether historical or archaeological, Zone 7 shall comply with Public Resources Code 21084.1 or 21083.2. Any identified archaeological resources shall be recorded by the archaeologist on Form “D” Public Resources (DPR) 422 (archaeological sites) and/or DPR 523 (historic properties) or similar forms.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes procedures associated with encountering of cultural resources in construction specifications including an onsite archaeologist if necessary , during all ground disturbing activities.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. In the event that cultural resources are found, construction shall stop and a qualified archaeologist shall be consulted.	2. Copies of DPR 422 or 523 shall be retained in the Zone 7 files.	2. Zone 7	2. During construction

Measure CR-2: In accordance with CEQA Guidelines Section 15064.5, in the event that prehistoric human remains are encountered, ground-disturbing activities at that location shall cease immediately, and there shall be no further excavation or disturbance of the site or any nearby areas reasonably suspected to overlie adjacent human remains until the County coroner makes a determination. If the coroner determines that the remains are Native American, then the Native American Heritage Commission in Sacramento shall be contacted within 24 hours, along with the Most Likely Descendant(s) of the deceased Native American, and disposition of the remains shall be in accordance with all applicable laws and regulations.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 shall include procedures associated with encountering pre-historic human remains in construction specifications.	1. Zone 7 reviews contractor specifications.	1. Zone 7	1. Prior to construction.
2. In the event prehistoric human remains are found, work shall stop and procedures identified above shall be followed.	2. Zone 7 retains agreement with Native Americans in Zone 7 files.	2. Zone 7	2. During construction; before construction recommences

Geology and Soils

Measure GEO-1: Zone 7 will conduct a geotechnical study of the project site to determine appropriate construction methods and foundation design. The study will focus on seismic hazards and expansive soils. The project design will comply with the recommendations of the study, the latest version of the Uniform Building Code and the American Water Works Association design guidelines for seismically active areas.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 conducts a geotechnical study and includes recommendations in construction.	1. Zone 7 incorporates study into construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Hazards and Hazardous Materials

Measure HM-1: All storage and handling of hazardous materials onsite shall conform to the most recent Zone 7 Hazardous Materials Management Plan as well as Cal/OSHA and Uniform Fire Code requirements.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure HM-2: Zone 7 shall require the contractor to prepare, approve, and submit a Health and Safety Plan (Plan) that includes a project-specific contingency plan for hazardous materials and waste operations before site activities could proceed. The Plan shall be applicable to all excavation activities, shall establish policies and procedures to protect workers and the public

from potential hazards posed by hazardous wastes. The plan shall be prepared according to federal and California OSHA regulations for hazardous waste site health and safety plans.

The plan shall include, but shall not be limited to, the following:

- A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage areas, access and egress routes, waterways, emergency assemble areas, temporary hazardous waste storage areas;
- Spill control and countermeasures, including employee spill prevention/response training; and
- Notification and documentation procedures.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 prepares a Health and Safety Plan	1. Zone 7 incorporates plan in construction specifications.	1. Zone 7	1. Prior construction.
2. Zone 7 implements the plan	2. Zone 7 signs-off that measures have been implemented.	2. Zone 7	2. During construction

Measure HM-3: Construction workers and Zone 7 personnel shall be appropriately trained in spill prevention, hazardous material control, and clean up of accidental spills.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure HM-4: The discharge of any hazardous or non-hazardous waste as defined in CCR Division 2, Subdivision 1, Chapter 2 shall be conducted in accordance with applicable state and federal regulations.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure HM-5: Proposed facilities shall be designed and constructed in accordance with CalARP requirements. Such a plan would include the installation of ammonia monitors to detect an accidental release of aqua ammonia, and to have a system that allows operators to shut-off an ammonia leak within 5 minutes or install a water deluge system that is capable of rapidly diluting a spill to prevent a vapor release.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes CalARP requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction and operation
2. Contractor implements measures during construction. Zone 7 implements during operations.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Hydrology and Water Quality

Measure WQ-1. Zone 7 may apply for a pre-treatment industrial discharge permit with DSRSD and may enter into an additional agreement as necessary with EBDA. The agreements and the RO concentrate discharge parameters would be in compliance with the applicable permit/s.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 negotiates agreements with appropriate parties.	1. Zone 7 includes agreement in administrative record	1. Zone 7	1. Prior to Construction Contract Award

Measure WQ-2: Zone 7 shall require contractors to implement BMPs for construction activities as specified by the California Storm Water Best Management Practices Handbook (Stormwater Quality Task Force, 1993) and/or the Manual of Standards for Erosion and Sediment Control Measures (ABAG, 1995). The BMPs include measures guiding the management and operation of construction sites to control and minimize the potential contribution of pollutants to storm runoff from these areas. Erosion and sedimentation control practices include installation of silt fencing, straw wattle, soils stabilization, revegetation, and runoff control (e.g., detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sand bag dikes) to limit increases in sediment in stormwater runoff and avoid chemical spills by implementing **Measures HM-1** through **HM-4**.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 shall incorporate BMPs in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior construction.
2. Contractor shall implement the BMPs.	2. Zone 7 signs-off that measures have been implemented.	2. Zone 7	2. During construction

Noise

Measure N-1: Zone 7 shall design and construct the proposed facility such that operational noise does not exceed 60 Ldn at the nearest property line.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes noise requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure N-2: In general, construction work shall be conducted during daytime hours (8 a.m. to 5 p.m.). All onsite construction equipment with internal combustion engines shall be equipped with adequate mufflers.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes work hour limitations in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Transportation/Traffic

Measure T-1: Zone 7 shall require its contractor to submit Traffic Control Plans for ingress and egress to the project site during construction, and for any work occurring outside of the fence line that could affect traffic on Stoneridge Drive. At a minimum, construction signage shall be posted at the project site warning the public of construction work and to exercise caution. When necessary, to provide for equipment and deliveries, flagmen shall be used for temporary truck access. In the event temporary lane closure is required, contractor shall submit the Traffic Control Plan to the City of Pleasanton for review and comments.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes Traffic Control Plan and signage requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures, including Pleasanton submittal for lane closure	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Draft

ZONE 7 MOCHO GROUNDWATER DEMINERALIZATION PLANT PROJECT

Initial Study and Mitigated Negative Declaration

Prepared for:
Zone 7 Water Agency

February 2006

NOTICE OF PUBLIC REVIEW AND INTENT TO ADOPT A PROPOSED MITIGATED NEGATIVE DECLARATION

Zone 7 Mocho Groundwater Demineralization Plant Project

Pursuant to the State of California Public Resources Code and the "Guidelines for Implementation of the California Environmental Quality Act of 1970" as amended to date, this is to advise you that the Zone 7 Water Agency (Zone 7) has prepared an initial study/mitigated negative declaration (IS/MND) on the Zone 7 Mocho Groundwater Demineralization Plant Project.

Zone 7 proposes to install up to 7.7 million gallons per day groundwater demineralization facility in the City of Pleasanton, California adjacent to Arroyo Mocho off of Stoneridge Drive and Santa Rita Road on the vacant portion of the existing Mocho 4 well site. The demineralization facility would remove salts from the groundwater basin at the point of extraction and would generate permeate or product and concentrate or reject water. The permeate would be blended with groundwater before it is pumped into the distribution system. The concentrate solution would be discharged into San Francisco Bay via the Livermore Interceptor, which is located along the northern portion of the project site and/or via the Dublin San Ramon Services District (DSRSD) Export Pipeline. Prior to implementation, Zone 7 would enter into an operational agreement with the City of Livermore and/or DSRSD for the concentrate disposal through connection with the Livermore Interceptor and/or DSRSD Export Pipeline under their respective existing permits.

The IS/MND report describes the proposed project, analyzes whether the project would result in any potential significant environmental impacts, and describes measures that would mitigate any potential significant impacts to less than significant level.

Public Comment Period - The period for accepting comments on the adequacy of the environmental documents extends to **5:00 P.M., March 29, 2006**. Any comments should be in writing and submitted to the following address:

Jarnail Chahal
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Public Workshop with Zone 7 Staff: A public workshop with Zone 7 staff will be held on **Tuesday, March 21, 2006 at 7 p.m. at 100 North Canyons Parkway, Livermore, CA 94551**.

The proposed IS/MND will be considered for adoption at the regularly scheduled Zone 7 Board of Directors meeting on **April 19, 2006 at 7 p.m.**

Draft

ZONE 7 MOCHO GROUNDWATER DEMINERALIZATION PLANT PROJECT

Initial Study and Mitigated Negative Declaration

Prepared for:
Zone 7 Water Agency

February 2006

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SECTION 1

Project Description

1.1 Introduction and Project Background

Zone 7 Water Agency (Zone 7) serves as the overall water quality management agency for the Alameda Creek Watershed north of the Niles area of Fremont and has the primary responsibility of managing the Livermore-Amador Valley's surface and groundwater resources.

Historically, Zone 7 has managed the Main Groundwater Basin (Main Basin) of the Livermore-Amador Valley by maximizing surface water deliveries, artificially recharging the basin with low total dissolved solids (TDS) surface water, and limiting groundwater pumping and wastewater disposal within the watershed. Over time, however, the groundwater basin has accumulated salts affecting water quality. Zone 7's water quality monitoring data show increasing accumulation of salt in the groundwater basin. The average TDS level for groundwater pumped and delivered from the Main Basin is 450 milligrams per liter (mg/L) and increasing at a rate of about 10 mg/L annually. The long-term average net salt loading is approximately 4,000 tons per year to the groundwater basin under 2003 land use conditions. The projected net salt loading to the Main Basin at build out conditions is estimated at 6,000 tons per year.

In the early 1990s several water reclamation projects were proposed by the wastewater entities within the Valley, including the City of Livermore and Dublin San Ramon Services District (DSRSD), which provides service to Dublin, portions of San Ramon, and the City of Pleasanton. In response to these projects, and recognizing the potential for recycled water use to result in additional salt loading, the San Francisco Bay Regional Water Quality Control Board (RWQCB) issued a Master Permit for Water Recycling in December 1993. The permit was issued jointly to Zone 7, the City of Livermore, and DSRSD, with Zone 7 as the lead agency. The Master Permit authorized the permittees to produce and distribute recycled water of specified quality to customers throughout the Valley in accordance with a Salt Management Program, to be prepared by Zone 7, for protecting, improving, and enhancing Valley groundwater quality.

Zone 7 developed a Salt Management Plan (SMP) in 1998 to address the issue of salt accumulation and to identify potential salt management strategies to protect groundwater quality. The SMP was developed through a cooperative effort involving Zone 7 staff, consultants to Zone 7, a Technical Advisory Group (TAG) comprised of local retailers, and the Groundwater Management Advisory Committee (GMAC), and was approved by the RWQCB in September 2004. The SMP discusses the potential strategies available to offset long-term average salt TDS loading of 4,000 tons per year to the groundwater basin under 2003 land use conditions. One strategy, consisting of a composite of conjunctive use and 5,000 acre-feet of wellhead

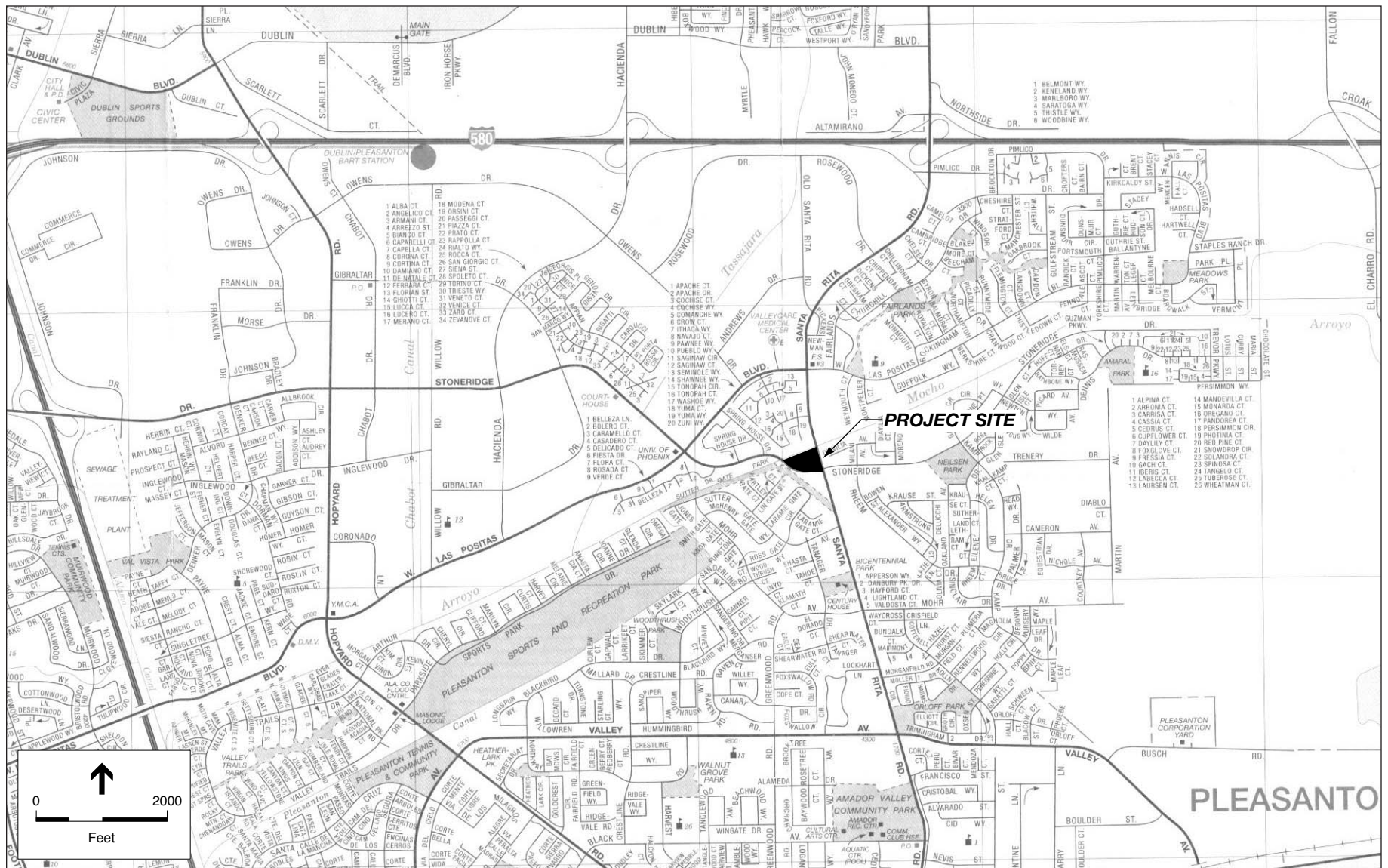
demineralization, would eliminate the salt imbalance at relatively low cost, improve or maintain delivered water quality, and would be acceptable to the public. Therefore, this composite strategy was identified as the only strategy that met all the screening criteria. This option would offset annual salt loading associated with surface water use and would provide a low TDS water supply source for blending to improve delivered water quality.

To evaluate the feasibility of this salt management strategy, Carollo Engineers (2000) assessed groundwater demineralization. The essential findings and conclusions in the feasibility evaluation are as follows:

- Reverse osmosis (RO) is the most likely treatment process for demineralization or desalination due to the fact that it is more efficient than the other available technologies (nanofiltration, single-stage electrodialysis reversal, and two-stage electrodialysis reversal) and has a wider range of TDS removal in raw water.
- Discharge of the RO concentrate produced by the demineralization process into the Livermore-Amador Valley Water Management Agency (LAVWMA) treated wastewater effluent export pipeline is the preferred option. The LAVWMA pipeline connects to the East Bay Dischargers Authority force main for disposal to San Francisco Bay. This option had the fewest technical constraints as compared to the other three alternatives considered. These included: deep well injection, creek discharge, and evaporation ponds. The study eliminated deep well injection due to Department of Health Services and RWQCB permitting issues and the potential to impact groundwater quality. Creek discharge has similar RWQCB permitting issues and could affect surface water quality, and therefore was eliminated. Evaporation ponds were eliminated because of the lack of suitable disposal locations, the cost of land acquisition, and long-term disposal management.

Subsequent to these findings, Zone 7 identified the site of the existing Mocho 4 well, as the most feasible RO treatment facility site, adjacent to Arroyo Mocho off of Stoneridge Drive and Santa Rita Road in the City of Pleasanton. This location was selected based upon proximity to existing infrastructure, including: existing source water wells (Mocho 1, 2, 3, and 4), the Livermore Interceptor (Export Pipeline), and Zone 7's distribution system.

As a result of these analyses, Zone 7 is proposing to implement the Mocho Groundwater Demineralization Plant project adjacent to its existing Mocho 4 well, located at the intersection of Santa Rita Road and Stoneridge Drive, in the City of Pleasanton, California (see **Figure 1**). The proposed facility would have the capacity to treat up to 7.7 million gallons per day (mgd) of groundwater using RO technology to generate a low TDS permeate for blending into the Zone 7 distribution system.



SOURCE: CSAA, 1998

Zone 7 Mocho Groundwater Demineralization Plant Project . 200141

Figure 1
Project Location

1.2 Current Water Quality Program

The current Zone 7 water quality program includes several projects to manage both groundwater quality and delivered water quality. A brief discussion of each of these is presented below:

- **Water Quality Management Program (WQMP) and Water Quality Policy.** In an effort to address the issue of delivered water quality on a Valley-wide basis, Zone 7 prepared the WQMP in 2000. Completed in May 2003, the purpose of the WQMP was to establish guidelines and policies for potable and non-potable water quality. In terms of delivered water quality, Zone 7's Water Quality Policy establishes goals that are more stringent than legal requirements, including a goal of improving water quality among retailers to "moderately hard", which is between 75 and 150 mg/L as calcium carbonate.
- **South Bay Aqueduct (SBA) Improvement and Enlargement Project.** This project proposed by the California Department of Water Resources (DWR) would convey an additional 130 cubic feet per second (cfs) to Zone 7. This would meet Zone 7's long-term raw water conveyance needs and would provide the ability to import higher quality supplies during spring and summer months for recharge, thereby benefiting groundwater quality.
- **Altamont Water Treatment Plant (AWTP) and Altamont Pipeline.** The AWTP Phase 1 would provide an additional 24 mgd of treated surface water to the existing system and the Phase 2 would add 12 to 18 mgd of treated surface water to the system. Phase 1 of the AWTP is planned to be online in 2009.
- **Del Valle Water Treatment Plant (WTP) Dissolved Air Flotation (DAF) Facility.** A new 10-mgd Dissolved Air Flotation (DAF) facility would be completed by early 2007. This would increase the reliable surface water production at the Del Valle WTP to 36 mgd (from the existing 26 mgd) during the peak summer demand periods).
- Additionally, Zone 7 is considering conversion of three of the four existing Superpulsators with DAF facilities after AWTP Phase 1 is in-service and after the first phase of DAF units are online and operational. This would potentially bring the future capacity of Del Valle WTP up to 40 mgd. The replacement of at least one of the Superpulsators could occur by late 2014 with two more in 2015.

In order to address salt loading issues and delivered water quality hardness goals, Zone 7 has identified a total demineralization capacity of 15 to 20 mgd to meet the SMP salt removal goal of 6,000 tons per year. Demineralization capacity would be developed in two phases planned for the construction of wellhead demineralization facilities. Coupled with conjunctive use, the planned future wellhead demineralization facilities would assist Zone 7 in meeting both SMP salt removal goals and delivered water hardness goals established in the Water Quality Policy. The proposed Mocho groundwater demineralization plant is anticipated to be operational by mid-2008. A second wellhead demineralization facility, with an anticipated capacity of 5 to 6 mgd with a salt removal goal of approximately 3,000 tons per year, is currently scheduled to be online by 2012. This facility would be subject to a separate facility siting, pre-design and CEQA analysis effort.

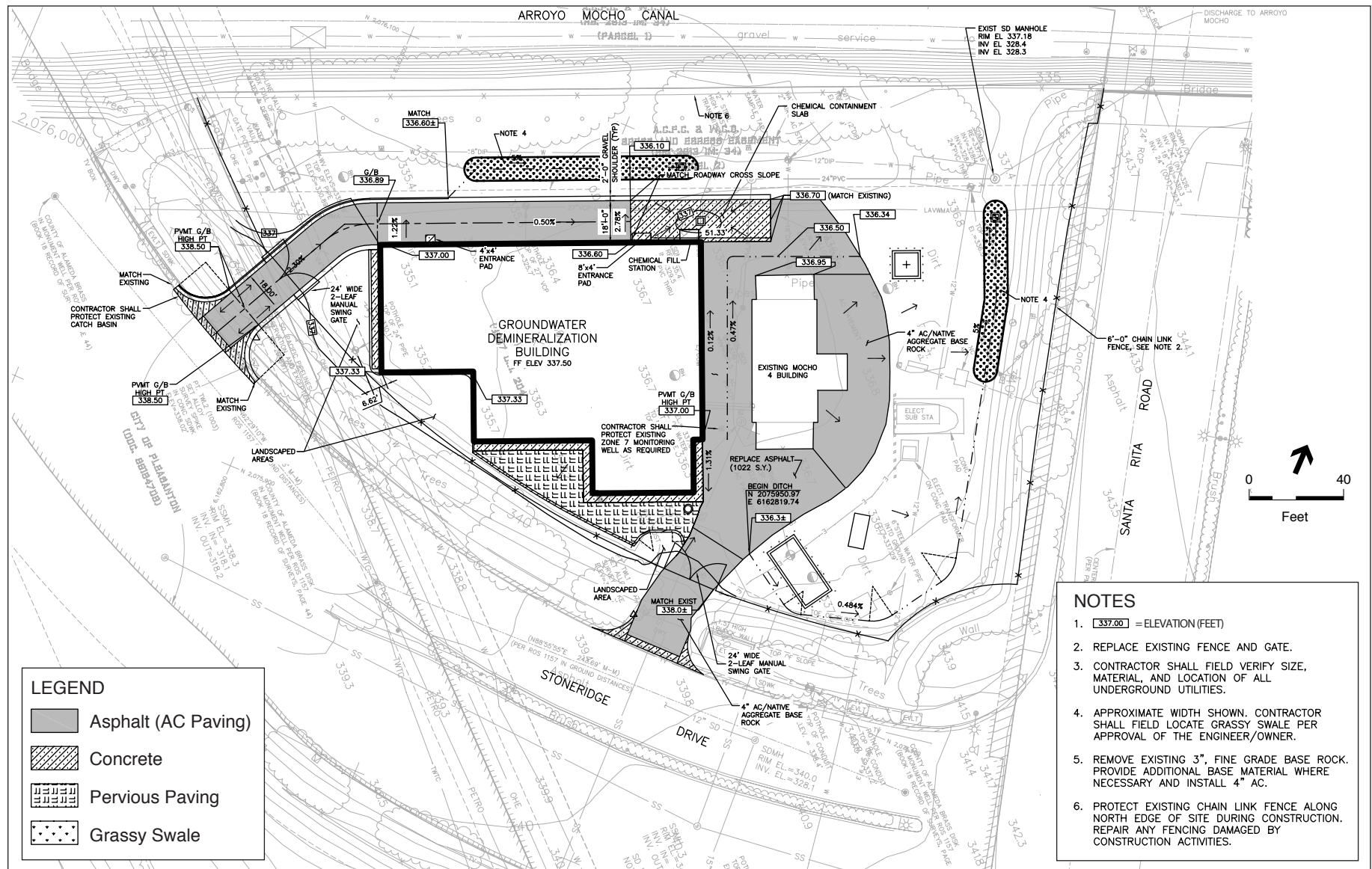
The combination of additional surface water and the wellhead demineralization projects would significantly reduce the system-wide average hardness to within the WQMP hardness goal range of 75 to 150 mg/L, as calcium carbonate. Once the 10 mgd DAF facility is operational at Del Valle WTP in early 2007, there would be a decrease in hardness level under average conditions. With the proposed Mocho groundwater demineralization plant online by 2008 and Phase 1 of AWTP online in 2009, the average hardness levels are anticipated to drop to below 120 mg/L. By 2015, implementation of a second demineralization project and AWTP Phase 2 capacity could lower the system-wide average hardness closer to the lower limit of 75 mg/L.

1.3 Proposed Project

Zone 7 proposes to install up to 7.7 mgd groundwater demineralization facility in the City of Pleasanton, adjacent to Arroyo Mocho off of Stoneridge Drive and Santa Rita Road (see **Figure 2**) to remove salts from the groundwater basin at the point of extraction. Demineralization would occur through the use of RO membrane-based treatment, producing permeate water with TDS in the range of 10 to 15 mg/L, depending on source water quality. Source water for the facilities would be initially provided by four existing potable supply wells located on or immediately adjacent to the site; Mocho 1, Mocho 2, Mocho 3, and Mocho 4. Reverse osmosis is a physical separation process, in which water is pressurized and passed through a semi-permeable membrane. Molecular constituents (i.e., calcium, magnesium, sodium, etc.) larger than the molecular pore size of the membrane do not pass through, and exit the membrane system as concentrate. Demineralized water molecules pass through the membrane and exit the system as the permeate or product.

Following RO treatment, the resulting treated water or the permeate would have a TDS level of approximately 10 to 15 mg/L. Zone 7 would blend the permeate with other groundwater (non-demineralized) and/or surface water before delivery to achieve a target TDS or hardness level. At an operational capacity of up to 7.7 mgd, the RO treatment would generate approximately 1.6 mgd of concentrate and 6.1 mgd of permeate. Based on the source water TDS level of approximately 520 mg/L, the RO concentrate is anticipated to have a TDS level of approximately 2,600 mg/L.

The concentrate solution resulting from the RO process would be discharged into San Francisco Bay via the Livermore Interceptor, which is located along the northern portion of the project site and/or via the DSRSD Export Pipeline (see **Figure 3** for pipeline layout). Connection with the Livermore Interceptor would be made onsite while connection with the DSRSD Export Pipeline would be made using the abandoned DSRSD water pipeline and the existing clean water revival (CWR) pipeline. The Livermore Interceptor is a pipeline that carries treated wastewater effluent from the City of Livermore west across the Livermore Valley, discharging into the LAVWMA Export Facilities. The DSRSD Export Pipeline carries treated wastewater from the DSRSD wastewater treatment plant (WWTP) to the LAVWMA pipeline. The LAVWMA Export Facilities convey effluent over the Dublin Grade, with connection and eventual discharge to San Francisco Bay via the East Bay Dischargers Authority (EBDA) Force Main and outfall into San Francisco Bay. EBDA is a joint powers authority comprised of the City of Hayward, City of



SOURCE: Carollo Engineers, 2005

Zone 7 Mocho Groundwater Demineralization Plant Project . 200141

Figure 2
Proposed Demineralization Facility-
Site Plan



SOURCE: Zone 7 Water Agency, 2005

Zone 7 Mocho Groundwater Demineralization Plant Project . 200141

Figure 3
Major Wastewater Pipelines
in the Project Vicinity

San Leandro, Oro Loma Sanitary District, Castro Valley Sanitary District, and Union Sanitary District that holds a joint National Pollutant Discharge Elimination System (NPDES) permit to discharge wastewater into the Bay.

Zone 7 would operate the facility on a nine months per year basis subject to available disposal capacity in the LAVWMA operational program. This would include peak groundwater pumping periods (typically the summer “dry” months May through October). In addition, Zone 7 could operate the facility for additional periods as needed for salt management.

1.4 CEQA Compliance

Zone 7 has prepared this Mitigated Negative Declaration to provide the public and responsible and trustee agencies reviewing this project, with information about the potential effects, both beneficial and adverse, on the local and regional environment. For the purposes of the impact analysis, the project site or area includes the demineralization facility site and rights of way of the pipeline alignments. This Mitigated Negative Declaration is prepared in compliance with Public Resources Code Section 21000 et seq., California Environmental Quality Act (CEQA) of 1970 (as amended), and Title 14, Chapter 3 of the California Administrative Code. In accordance with the CEQA Guidelines, California Code of Regulations Title 14, Chapter 3, Section 15070, a Mitigated Negative Declaration shall be prepared if the following criteria are met:

- There is no substantial evidence that the project may have a significant effect; or
- Where there may be a potentially significant effect, revisions to the project would avoid or mitigate the effects to a point where clearly no significant effects would occur.

In accordance with Section 15073 of the CEQA Guidelines, this document is being circulated to local, state and federal agencies and to interested organizations and individuals who may wish to review and comment on the report. Written comments may be forwarded to:

Jarnail Chahal,
Zone 7 Water Agency,
100 North Canyons Parkway,
Livermore, CA 94551.

1.5 Project Objectives and Need

As discussed under **Section 1.1, Background**, Zone 7’s SMP identified demineralization as a preferred strategy for managing salts in the groundwater basin. The 7.7 mgd demineralization facility would be developed to meet the following objectives:

- The target net salt removal goal for the facility of up to 4,000 tons per year;
- Implement salt management in an economically efficient manner;
- Reduce potential environmental impacts to the degree feasible; and
- Provide delivered water quality benefits through blending of demineralized permeate with groundwater sources.

1.6 Proposed Water Demineralization Facility

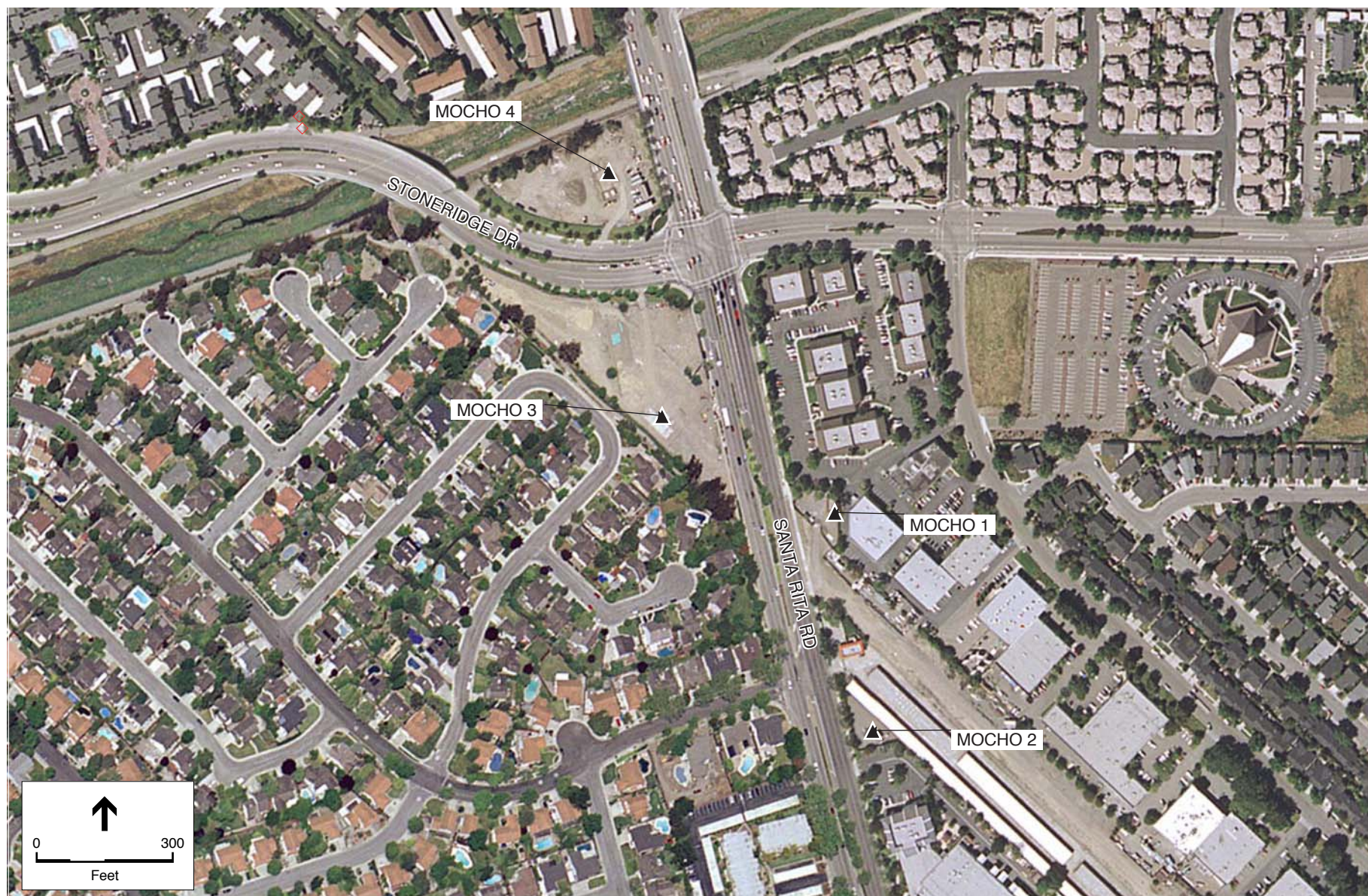
Zone 7 proposes to construct and operate a 7.7 mgd demineralization facility on an approximately one-acre parcel located in the northwest corner of the Stoneridge Drive/Santa Rita Road intersection, within the City of Pleasanton. A preliminary site plan is provided in **Figure 2**. The facility would treat potable water supplies from existing wells in the vicinity, including Mocho 4 (onsite), Mocho 3 (south of Stoneridge Drive), and Mocho 1 and 2 (east of Santa Rita Road) (**Figure 4**).

Concentrate generated by the RO treatment process would be discharged to the Bay via the Livermore Interceptor, which is located adjacent to and north of the site, and/or via the DSRSD Export Pipeline. The facility would be sized to meet a salt removal goal of up to 4,000 tons per year and would generate a low TDS permeate. A blending pipeline would convey the distribution system water from the Cross Valley pipeline into the facility to blend with the permeate. The blended water would then be injected into the Santa Rita-Dougherty pipeline and Mocho Pipeline. The blending pipeline would extend to a connection point east of Santa Rita Road via the Arroyo Mocho access road, located just north of the project site. A description of site characteristics, proposed facilities, and anticipated operations is provided below.

Site Characteristics

The project site is located within an approximately one acre land parcel at the northwest corner of the intersection of Stoneridge Drive and Santa Rita Road in the City of Pleasanton. Historically, the U.S. Army Camp Parks occupied the parcel and operated three water production wells on the site. The land parcel is currently owned by the U.S. Government. The DSRSD has a license from the U.S. Government to use the site that includes the existing Zone 7 Mocho 4 well facility (Chahal, 2006). The entire site is graded. Zone 7 constructed the Mocho 4 well facility in 2001-02, which consists of a 6-mgd deep aquifer production well housed in a single story, split face concrete structure with painted metal roof (see **Figure 5**). A chain link fence, topped with barbed wire encloses the parcel.

The parcel is relatively flat and is at a lower elevation than Stoneridge Drive (by approximately three to five feet) and Santa Rita Road (by approximately nine feet). Vegetation consists of landscape pines and eucalyptus along the fence parallel to Arroyo Mocho; otherwise the site is bare of vegetation. Two water pipelines and the Livermore Interceptor sewer line cross the parcel. There are two points of access to the site, both along Stoneridge Drive; one is located in front of the existing Mocho 4 well facility and the other is located at the western end of the parcel, near Arroyo Mocho. Other than the existing well facilities (Mocho 4 and Camp Parks wells), there are no buildings on or immediately adjoining the project site. Santa Rita Road and Stoneridge Drive bound the project site to the east, south, and west, and the Arroyo Mocho flood control channel is located to the north. Surrounding land uses consist of an apartment building north of the flood control channel, Zone 7's Mocho 3 well facility to the south across Stoneridge Drive, single-family residences to the east across Santa Rita Road, and a small office park to the east across Santa Rita Road.



SOURCE: Zone 7 Water Agency, 2004

Zone 7 Mocho Groundwater Demineralization Plant Project . 200141

Figure 4
Location of Mocho Wells



Proposed Project Site: View looking east toward Santa Rita Road. Mocho 4 Well Building located on eastern portion of property.



Proposed Project Site: View looking northwest from Stoneridge Road/Santa Rita intersection. Demineralization Facility would be implemented west (left) of the existing Mocho 4 Well Building.

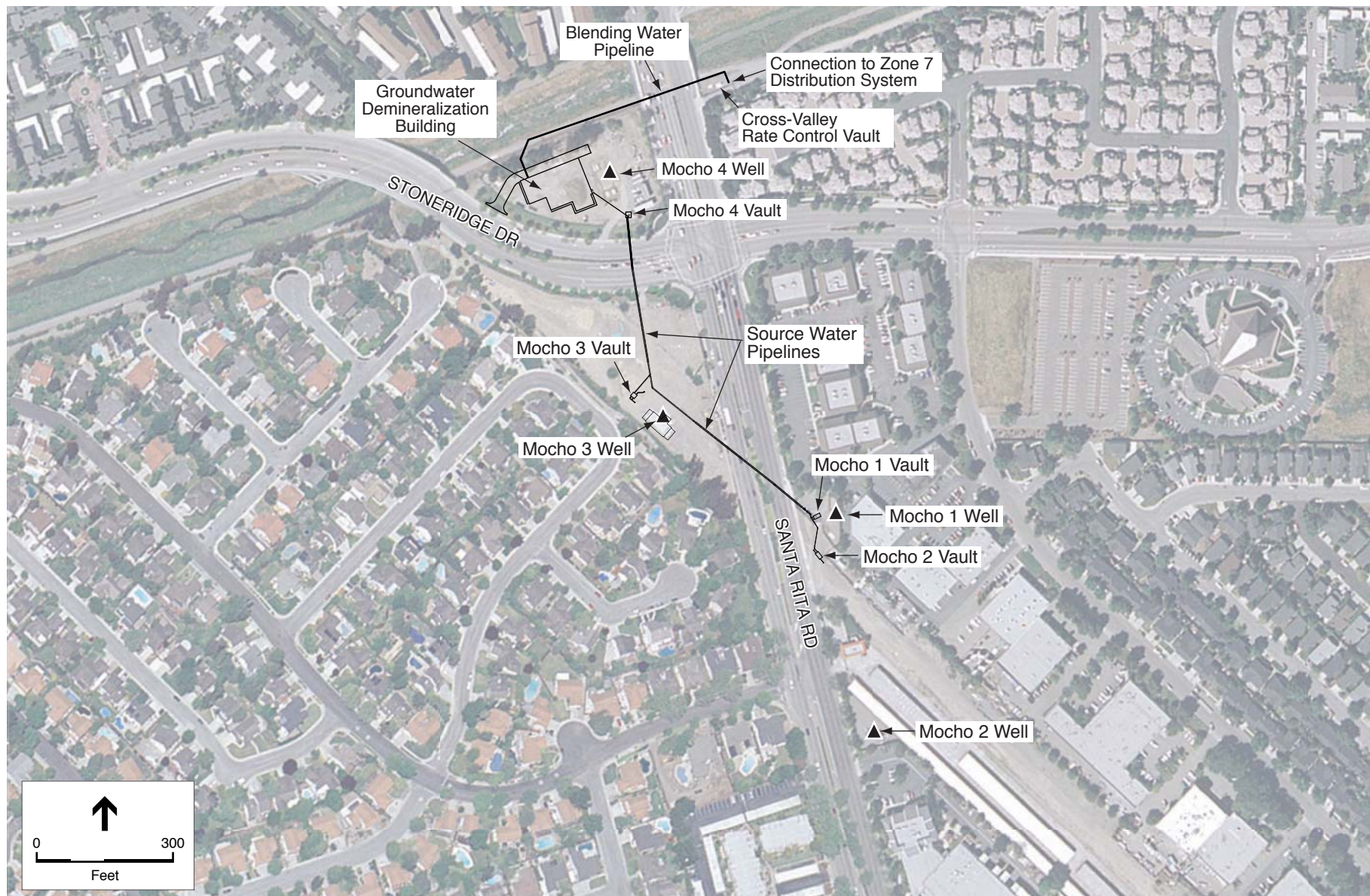
Proposed Facilities

The proposed demineralization facility would be located on the western half of the parcel, adjacent to the existing Mocho 4 Well. The demineralization facility would consist of a single-story structure, approximately 132 feet long and up to 104 feet wide, with the shorter side oriented toward Santa Rita Road. A preliminary site plan for the facility is provided in **Figure 2**. The proposed footprint would encompass approximately 9,350 square feet. The height of the facility would be approximately 36 feet at the highest point.

The structure would house the following treatment train: RO feed pumps, RO process trains, finished water pumps, HVAC, decarbonation towers and blowers, as well as sodium hypochlorite, scale inhibitor, aqua ammonia, and caustic soda feed systems. Bulk chemical deliveries would occur on the northeast side of the demineralization facility. A wet well would be located below the decarbonation towers and finished water pumps. Additionally, control areas and operators wet lab would be provided onsite.

Source water would be supplied to the facility from existing Zone 7 potable wells in the vicinity, including: Mocho 4 (onsite), Mocho 3 (south of Stoneridge Drive) and Mocho 1 and 2 (east of Santa Rita Road). Source water connection pipelines installed as part of the project would include approximately 1,000 feet of 12 to 28-inch pipeline from Mocho 1 and 2 on the east side of Santa Rita Road to the existing Mocho 3 facility and a second 28-inch pipeline of approximately 1,000 feet across Stoneridge Drive to the proposed facility (see **Figure 6**). Existing well facility sites provide jack and bore locations such that all construction activities are anticipated to take place within Zone 7 right-of-way. Connections to the Livermore Interceptor would be made onsite. Connection to the DSRSD Export Pipeline would be made using the existing abandoned DSRSD water pipeline and the clean water revival (CWR) pipeline. Approximately 1,000 feet of 16-inch distribution blend water pipeline would be installed in the access road along Arroyo Mocho to convey the distribution system water from the Cross Valley Pipeline (located east of Santa Rita Road) into the demineralization facility to blend with the permeate (**Figure 6**). The permeate from the demineralization facility would be blended with additional groundwater pumped from the Mocho wells or a stream of distribution system water. The blended water would then be pumped into the Zone 7 transmission system at the plant site for delivery.

Figure 7 shows conceptual rendering of the proposed facility from Stoneridge Drive. The actual completed project and architectural features may differ slightly based upon final design and architectural review. However, the proposed facility would be compatible with the existing Zone 7 Mocho 4 well facility (located onsite) and the Mocho 3 well facility located across Stoneridge Drive, on the southern corner of Stoneridge Drive and Santa Rita Road. The proposed facility would have a split face concrete masonry unit construction and a painted metal roof. A parking lot area for approximately six vehicles would be located on the south side of the building. Onsite landscape with trees would be preserved to the degree feasible; however it is anticipated that one tree would need to be pruned or removed for project implementation.



SOURCE: Zone 7 Water Agency, 2004; Carollo Engineers, 2005

Zone 7 Mocho Groundwater Demineralization Plant Project . 200141

Figure 6
Source and Permeate Pipelines



View across Stoneridge Drive, Looking North



View across Santa Rita Road, Looking West

Operation

Operation of the proposed facility would consist of demineralization or RO treatment of source or raw water from potable water wells. Initially, the facility would process up to 7.7 mgd of groundwater, generating up to 6.1 mgd of permeate (treated water) and up to 1.6 mgd of the RO concentrate solution. Source water pumpage would occur from a combination of the existing and future potable supply wells located onsite or adjacent to the site (Mocho 1, Mocho 2, Mocho 3, and Mocho 4). The RO source feed flow is estimated to be at 5,313 gallons per minute (gpm) with a net salt removal goal of up to 4,000 tons per year.

Treatment Process

The basic processes associated with an RO system include pre-treatment, RO, and post-treatment. Pre-treatment of raw water is necessary to reduce the level of membrane foulants including suspended solids and to sequester scaling salts which would foul and interfere with the operation of the RO membranes. During pre-treatment, the source water from the wells is passed through cartridge filters to remove particles that could obstruct the flow of water between the membrane surfaces. Certain chemicals (scale inhibitors) are added to the water stream to prevent precipitation and lodging of minerals and fouling of the RO membranes. The pre-treated feed water would be pressurized to 120 to 180 pounds per square inch. The pressurized water is then distributed to a series of long, pipe shaped pressure vessels containing the RO membranes. Following the RO treatment, the post-treatment process consists of aeration of the permeate in a decarbonator to remove dissolved carbon dioxide to help increase the pH and reduce corrosion potential. RO treatment of the source water would generate permeate or treated water with a low TDS level and RO concentrate solution with a high TDS level.

RO permeate would be blended with groundwater before it is pumped into the distribution system. Blending would be adjusted to optimize treated water hardness. The blended finished water would have a TDS level of approximately 150 to 310 mg/L. Design and operation of the proposed facility would be in compliance with California Department of Health Services (CDHS) requirements for potable drinking water supplies. Concentrate generated by the RO process would be discharged into San Francisco Bay via the LAVWMA pipeline and EBDA force main. The RO concentrate would be conveyed to the LAVWMA pipeline via the Livermore Interceptor and/or the DSRSD Export Pipeline. This discharge would be regulated under the City of Livermore's and/or DSRSD's NPDES permit, which incorporate EBDA's permit limits and compliance by reference. Zone 7 would ensure water quality compliance with the permit requirements associated with the Livermore Interceptor and/or DSRSD Export Pipeline.

Operational Program

Zone 7 would operate the facility on a nine months-per-year operational program to include peak groundwater pumping periods (typically the summer "dry" months May through October). This operational program would coincide with the interruptible capacity (higher capacity during summer months) of the Livermore Interceptor and/or the DSRSD Export Pipeline that would receive the RO concentrate. In addition, Zone 7 could operate the facility for additional periods

based on the ability of the Valley-wide wastewater effluent facilities to export the RO concentrate, as-needed for salt management. Depending upon annual operations, the facility would have the salt removal ability of up to 4,000 tons per year (12 months). The facility would be operated remotely from an off-site location, however would be field inspected on a daily basis generating one vehicle trip per day. Overall routine operations would require approximately 22 vehicle trips weekly to the site. During non-operating periods, the facility may be visited weekly by Zone 7 staff. Staff visits to the plant would occur for maintenance of the chemical feed systems, accepting deliveries, resetting alarms, membrane cleaning and storage, and other routine or non-routine maintenance. Non-routine maintenance would include membrane and pump maintenance, and decarbonator media replacement which may occur about once every five years. Maintenance of the pipelines would include only routine inspections and maintenance activities on a need basis.

Chemical Storage

Currently, chemicals such as salt-KD Coarse (16,000 pounds (lbs), sodium hypochlorite (1,690 gallons) and aqua ammonia (500 gallons) are stored in the Mocho 4 well building onsite. The proposed facility would include storage and handling of chemicals commonly used for treatment of water supplies and those that are currently used at the Mocho 4 well facility onsite.

Approximate quantities of chemicals that may be stored at the facility include 12 percent or less sodium hypochlorite (5,000 gallons), 18.5 percent aqua ammonia (2,000 gallons), 50 percent caustic soda (7,000 gallons), and a scale inhibitor (over 5,000 gallons) to sequester scaling salts. Other chemicals would include membrane cleaning chemicals, i.e., chemicals used to clean the RO membrane, and sodium bisulfite used as a membrane preservative stored on site in powdered form. Chemicals would be stored in the northeast portion of the demineralization facility and the bulk chemical deliveries would occur on the northeast side. These chemicals would be stored in diluted liquid form within facilities designed in conformance with the Uniform Fire Code, including provisions for secondary containment.

Chemical deliveries would vary with the chemicals, for example, deliveries would occur once approximately every eight months for the scale inhibitor, once every month for aqua ammonia, and once every 17 days for sodium hypochlorite and caustic soda. Membrane chemicals and preservatives would require delivery once every six months. Delivery of membrane chemicals would typically occur using a delivery van. Chemicals would be transported to the Cleaning System on a Fork Lift or Pallet Jack from where they are stored in the garage (southeast corner of the building). The chemicals would be either poured into the clean-in-place (CIP) tanks or via a drum pump (if pumping from a 55 gallon drum). Precautions indicated on the material safety data sheets (MSDS) for each chemical would be followed during storage, delivery, and other chemical handling operations.

Discharges from the Facility

The RO concentrate from the Mocho groundwater demineralization plant would be discharged into San Francisco Bay via the LAVWMA Pipeline and the EBDA force main. During project

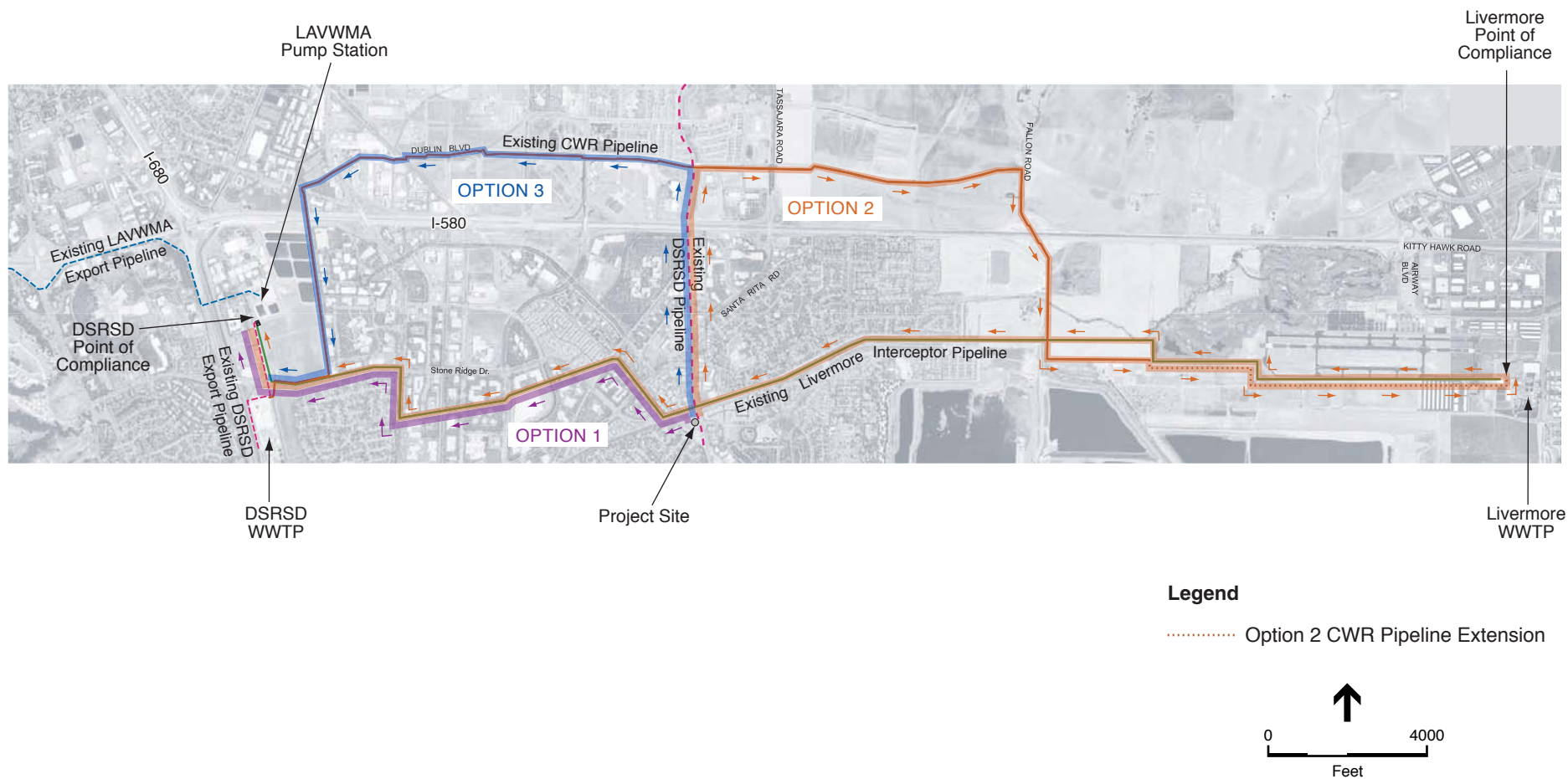
development, three routing options were considered for conveying the RO concentrate to the LAVWMA pipeline:

- In Option 1 (proposed project), the RO concentrate would be conveyed from the demineralization facility through the Livermore Interceptor (see **Figure 8**). The Livermore Interceptor runs through the demineralization plant site and connects to the LAVWMA Export Pipeline at the LAVWMA pump station. Under this option, a connection would be made to the Livermore Interceptor at the demineralization facility site.
- In Option 2, the RO concentrate would be conveyed north from the demineralization facility through the abandoned DSRSD pipeline, to the clean water revival (CWR) pipeline, east into the Livermore Interceptor at the Livermore WWTP. The concentrate would then flow west eventually into the LAVWMA Export Pipeline (see **Figure 8**). This option would require a connection between the demineralization facility and the abandoned DSRSD pipeline, a connection between the DSRSD pipeline and CWR pipeline, and eastward extension of the CWR pipeline to the Livermore Interceptor at the Livermore WWTP. The option may also require slip lining or other pipeline rehabilitation of the abandoned DSRSD pipeline. The CWR pipeline extension would result in increased environmental impacts, higher capital cost and higher operational cost. Therefore, this option is the least preferred alternative and is not discussed further in the MND.
- In Option 3, the RO concentrate would flow from the demineralization facility via the same pipelines, i.e., north via the abandoned DSRSD pipeline and west via the CWR pipeline, and through the DSRSD Export Pipeline at the DSRSD WWTP. The DSRSD Export Pipeline connects to the LAVWMA Pipeline at the LAVWMA pump station. This option would require a connection between the demineralization facility and the abandoned DSRSD pipeline, a connection between the DSRSD pipeline and the CWR pipeline, and a connection between the CWR pipeline to the DSRSD Export Pipeline. This option may also require slip lining or other pipeline rehabilitation of the abandoned DSRSD pipeline.

Options 1 and 3 are the preferred routing options, and both of these concentrate routing options have been included in this analysis. Decision on the actual routing option would be negotiated between Zone 7 and appropriate parties. Since both the alternatives make use of the existing pipelines and discharge into San Francisco Bay via LAVWMA pipeline and the EBDA force main, the operational environmental impacts would be the same for both options. Implementation of Option 3 would include additional valve connections between the existing DSRSD pipelines.

Operational Agreements

Prior to implementation, Zone 7 would enter into an operational agreement with the City of Livermore and/or DSRSD for the RO concentrate disposal through connection with the Livermore Interceptor and/or DSRSD Export Pipeline under their respective existing NPDES permits. Both agencies hold NPDES permits for disposal of secondary treated effluent from the WWTPs into the LAVWMA Export Facilities that connect to EBDA's deep water outfall in San Francisco Bay south of the Oakland airport. The existing permits are currently being considered for renewal/amendment by the San Francisco Bay RWQCB. Like all contributing agencies, these agencies are required to comply with the EBDA NPDES permit limits at the combined discharge



point of compliance. The proposed concentrate discharge would also be required to comply with the same limits at the point of release into the Livermore Interceptor and/or the DSRSD Export Pipeline. A comparison of the water quality of the RO concentrate with the water quality objectives of the EBDA permit indicates the RO concentrate quality to be within the permit requirements. See **Chapter 2, Checklist, Section VIII, Hydrology and Water Quality**, for detailed discussion. Pursuant to a policy adopted by EBDA on April 21, 2005, Zone 7 may be required to enter into an agreement with EBDA for the disposal of the RO concentrate and to comply with the EBDA NPDES Permit.

It is anticipated that sampling of RO concentrate would occur prior to its routing to the Livermore Interceptor and/or DSRSD Export Pipeline, with a second compliance sampling point downstream of the combined discharge. At this time, discharge would be matched with Livermore Interceptor's and/or the DSRSD Export Pipeline's interruptible capacities, which are limited during "wet" months (December through March). This seasonal discharge capacity limitation is consistent with the proposed operation of the facility.

Other waste streams associated with the facility operations include neutralized chemical solutions, RO by-product water, and facility plumbing drains that would flow into the facility drains to the sanitary sewer, which would be in compliance with anticipated Livermore and/or DSRSD pre-treatment permit requirements. Storm drains would be integrated with existing infrastructure and routed to Arroyo Mocho. The facility start-up water (approximately 2 mgd) would be discharged into the Livermore interceptor.

Construction

The project would include construction of the one-story demineralization facility building and approximately 2,000 feet of connecting pipeline from the water supply wells to the facility building. The following types of equipment are anticipated to be used onsite during construction activities:

- Bulldozer
- Grader
- Backhoe
- Crane
- Water Trucks
- Dump Trucks
- Electrical Generator

Construction of the building would be confined to the project site. Construction of the pipeline alignments would occur by jack and bore tunneling method. The source water pipelines would involve two segments; one segment through the Santa Rita Road north from Mocho 1 and 2 toward Mocho 3, and the second segment from Mocho 3 through Stoneridge Drive to the project site. The pipeline connections of the finished water pump station to the distribution system and the RO concentrate disposal to the Livermore Interceptor and/or DSRSD Export Pipeline would be made onsite. The 16-inch blending pipeline would be buried in the existing access road parallel to Arroyo Mocho. Construction work would also include making minor connections between the existing pipelines (i.e., the outlet pipe from the demineralization facility and the

Livermore Interceptor and/or the abandoned DSRSD pipeline, between the abandoned DSRSD pipeline and the CWR pipeline, and the CWR pipeline and the DSRSD Export Pipeline), interconnections between the DSRSD pipelines near the DSRSD WWTP), and slip lining or minor rehabilitation of the abandoned DSRSD pipeline, if required.

Approximately 10 to 15 construction workers would be present onsite during working hours, for construction period of about eighteen months. Construction is expected to begin in late 2006 or early 2007. Project construction would result in regular vehicle and truck trips, however these would occur over a short time period. Staging of equipment and worker vehicle parking would be accommodated within the project site.

1.7 Potential Permit Requirements

Following are the permits or agreements that may be required for project implementation:

- an agreement with the DSRSD for use of the project site;
- road encroachment and sanitary sewer discharge permits from the City of Pleasanton for pipeline installation;
- an agreement with EBDA, City of Livermore, DSRSD, and LAVWMA for discharge of the RO concentrate;
- General Construction Permit from the San Francisco Bay RWQCB;
- Streambed Alteration Agreement from California Department of Fish and Game;
- Authority to Construct and Permit to Operate from the Bay Area Air Quality Management District; and
- Permit from the local Fire Department.

SECTION 2

Environmental Checklist

1. **Project Title:** Zone 7 Mocho Groundwater Demineralization Plant Project
2. **Lead Agency Name and Address:** Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551
3. **Contact Person and Phone Number:** Jarnail Chahal
Zone 7 Water Agency
(925) 454-5027
Email: jchahal@zone7water.com
4. **Project Location:** Immediately south of Arroyo Mocho Canal off of Stoneridge Drive and Santa Rita Road
5. **Project Sponsor's Name and Address:** See Lead Agency
6. **General Plan Designation:** Public Health and Safety
7. **Zoning:** Public and Institutional Land
8. **Description of Project:** Construction and operation of a demineralization facility to remove excess salts from groundwater (see **Chapter 1, Project Description**).
9. **Surrounding Land Uses and Setting.** The project site is located adjacent to Arroyo Mocho off Stoneridge Drive and Santa Rita Road. Surrounding land uses include single-family residential areas, a small office park, and water well facilities.
10. **Other public agencies whose approval may be required:**
Road encroachment and sanitary sewer discharge permits from the City of Pleasanton, agreement with DSRSD for use of project site, agreement with EBDA, the City of Livermore, DSRSD, and LAVWMA discharge of RO concentrate, General Construction Permit from the San Francisco Bay RWQCB, streambed alteration agreement from California Department of Fish and Game, Authority to Construct and Permit to Operate from the Bay Area Air Quality Management District, and permit from the local fire department.

Environmental Factors Potentially Affected:

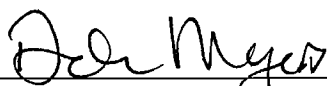
The environmental factors below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. However, mitigation measures identified in Section 2.0 would reduce these impacts to a less-than-significant level.

- | | | |
|---|--|--|
| ☒ Aesthetics | ☐ Agriculture Resources | ☒ Air Quality |
| ☒ Biological Resources | ☒ Cultural Resources | ☒ Geology / Soils |
| ☒ Hazards & Hazardous Materials | ☒ Hydrology / Water Quality | ☐ Land Use / Planning |
| ☐ Mineral Resources | ☒ Noise | ☐ Population / Housing |
| ☐ Public Services | ☐ Recreation | ☒ Transportation / Traffic |
| ☐ Utilities / Service Systems | ☒ Mandatory Findings of Significance | |

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Dale Myers, General Manager
Zone 7 Water Agency

Date 2-23-06

Environmental Impacts:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Discussion

- (a,b) The project site is located at the northwest corner of the intersection of Stoneridge Drive and Santa Rita Road, approximately one mile south of Interstate-580 (I-580), an Alameda County-designated scenic highway. The project area, including the pipeline rights of way, does not lie within any scenic vistas, and would not occur within direct views of drivers from I-580 due to the distance. Therefore, project implementation would not result in adverse impacts to scenic vistas, highways, or other scenic resources.
- (c) Project implementation would minimally alter the existing visual character of the project site, which is currently developed with the existing Zone 7 Mocho 4 well facility and paved areas. The existing visual quality of the site is low due to its partially developed nature, with the only noticeable visual element provided by landscaping trees along the northern and eastern fence lines. The mature pine trees screen the parcel from traffic on Santa Rita Road and from residential areas to the north and east. Pruning or removal of individual trees may be required for project implementation; however, this would not alter the visual characteristics at the project site. If tree removal is required, Zone 7 would review the tree conditions relative to the City of Pleasanton Heritage Tree Ordinance (**Measure AES-1**). The project would develop a single-story structure approximately 36 feet in height. Architectural renderings of the proposed facility are provided in **Figure 7 of Chapter 1, Project Description**. The facility would be designed to be consistent with existing facilities on the parcel, which include split face masonry units with a painted metal siding on the upper wall and roof area to provide architectural definition to the structure. As previously noted in **Chapter 1**, the parcel is separated from surrounding land uses on three sides by Santa Rita Road and Stoneridge Drive, both of which are four-lane arterials. The Arroyo Mocho flood control channel abuts the parcel to the north. Surrounding land uses to the north include two-story single and multi-family residences across Arroyo Mocho. Two-story single family residences and a commercial park are located to the east across Santa Rita Road. Zone 7's existing Mocho 3 Facility is located south of the parcel, across Stoneridge Drive, and single family residences are located further to the south of this facility.

Project implementation would include in-fill of the parcel partially developed with water production facilities within the urbanized area of Pleasanton. Zone 7 would submit architectural and landscaping plans to DSRSD and the City of Pleasanton Planning Department for their input (**Measure AES-2**). Proposed facilities would be consistent with the existing visual character of the project area, including the two-story residences to the east and north of the project site and the existing Zone 7 Mocho 3 facility to the south. Direct views of the project site from the Santa Rita Road/Stoneridge Drive intersection are limited due to the parcel's topographic location below each roadway, and the structure's setback from Stoneridge Drive. Facilities would be most visible to the eastbound traffic on Stoneridge Drive, and to drivers turning left from Santa Rita Road onto Stoneridge Drive. However, motorist views would be limited in duration, and the facility would be consistent with other urban uses within the area. Therefore, project implementation is not anticipated to substantially affect views of passing motorists.

The pipelines would be buried, therefore would not be visible. The proposed demineralization facility would be visible from single and multi-family residences in the vicinity of the Santa Rita/Stoneridge intersection. However, these views are limited due to the geometry of the roadways surrounding the site and the corresponding residential development pattern in the vicinity. Apartment complexes north of the parcel are oriented on a north-south heading, resulting in window orientations to the east and west, as opposed to overlooking the project site. Similarly, the residential subdivision south of Stoneridge Drive is oriented away from both this roadway and the project parcel. Views from residential units east of Santa Rita Road could be affected by project implementation. However, views of the project site are screened by both the topography of Santa Rita Road and the existing stand of decorative pines along the eastern parcel line, which would be retained as part of the landscaping plan for the facility. Therefore, project implementation is not anticipated to adversely affect views of existing residential units in the project vicinity.

Project design would incorporate elements to provide visual consistency with surrounding land uses, including the use of appropriate building materials, architectural design elements, setbacks from roadways, and landscaping. **Measure AES-2** includes plan submittal to DSRSD and the City of Pleasanton at appropriate design phase for review and comment. Implementation of these design measures would reduce the potential impacts to a less-than-significant level.

- (d) Project implementation would include installation of permanent, exterior lighting for security and emergency night maintenance. The project is in an urban and developed area with substantial existing sources of light. However, the contribution of light and glare from the proposed facility could be a potentially significant impact. Implementation of **Measure AES-3**, including shielding and orientation of lights downward, would reduce potential impacts to a less-than-significant level.

Mitigation Measures

Measure AES-1: In the event tree removal is required, Zone 7 shall review tree status relative to the City of Pleasanton Heritage Tree Ordinance, and shall acquire a permit as appropriate.

Measure AES-2: Zone 7 shall provide facility plans to DSRSD and the City of Pleasanton at appropriate design phase to provide an opportunity for review and comment.

Measure AES-3: Zone 7 shall ensure that all permanent exterior lighting is directed downward and oriented to insure that diffused light does not affect surrounding properties. In addition, highly reflective building materials and/or finishes shall not be used in the designs for proposed structures.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

Discussion

- (a–c) The project site is located within the current DSRSD property and the land is not designated as Prime or Unique Farmland, Farmland of Statewide Importance or Williamson Act lands. The land is designated as Urban and Built-Up Land on the Alameda Important Farmland Map (California Department of Conservation, 1992). The surrounding land is not used for agricultural purposes. Thus, the project would not result in impacts to agricultural resources.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion

- (a–d) The project is located within the Livermore Valley, a sub-region within the nine-county San Francisco Bay Area Air Basin under the Bay Area Air Quality Management District (BAAQMD). The entire Bay Area is designated as “nonattainment” for the state standards for ozone and PM-10. The basin is designated “other nonattainment” for the federal ozone standard and as a “maintenance” area relative to the national 8-hour average carbon monoxide standard. As a result of the “non-attainment” status, air quality plans have been adopted.

Fugitive¹ dust (including PM-10) and other criteria pollutants would be generated through construction activities, construction equipment exhaust and construction-related vehicle trips. Certain types of land uses are particularly susceptible to air quality conditions such as schools, hospitals, and residences. The closest sensitive receptors to the project site, including residences and Fairlands Elementary school (one-fourth mile to the northeast), are located greater than 100 feet north of the project site, across from Arroyo Mocho.

There would be no installed standby generators. In the event of an emergency, a plug for a large portable generator would provide power to the facility. The demineralization facility operations could involve criteria air pollutant emissions from stationary sources such as decarbonators. Operation of decarbonators would fall under the permit authority of the BAAQMD and be subject to the District’s Regulation 9, Rule 7 or 11. As part of the treatment process, volatile compounds such as carbon dioxide and radon, which are able to pass through the RO membranes, are stripped from the liquid to the gas phase. The decarbonators remove carbon dioxide gas to raise the water pH, and reduce the corrosive potential of the treated water. A by-product of this process is radon gas, which naturally occurs in groundwater within the Main Basin. Radon is a colorless, naturally occurring, radioactive, inert gaseous element formed by the radioactive decay of radium atoms in soil or rocks. Radon naturally occurs in trace amounts; however, high radon levels are a concern largely within indoor environments where radon gas can become concentrated. In the case of the proposed demineralization facility, it is estimated that the RO treatment would eventually reduce the naturally occurring radon in the source water from an average of 320 picocuries per liter (pCi/L) to 70 pCi/L. Assuming a flow rate of approximately 4,250 gallons per minute, radon released to the atmosphere would be 5.8 curies per day (Ci/day). Zone 7 would review this emission information with BAAQMD during permitting of the facility and would apply Best Available Control Technologies (BACTs), as appropriate (**Measure AQ-2**). *BAAQMD CEQA Guidelines* state that “sources of air pollutant emissions complying with all district regulations generally will not be considered to have a significant air quality impact” (BAAQMD, 1999).

The proposed facility would involve storage and use of a scale inhibitor and membrane cleaning solutions during operation. The chemical tanks would be covered under BAAQMD regulations and would be provided with vents for the chemical storage. Therefore, the impact would be minimal.

The proposed project would not conflict with or obstruct the implementation of applicable air quality plans because minimal operational air emissions would occur and construction-phase emissions are accounted for in the BAAQMD’s emission inventory. This includes the vehicle trips resulting from the project construction, i.e., maximum of two per day. Thus, construction-related emissions for the facility and the pipelines are not expected to impede attainment or maintenance of ozone or carbon monoxide standards in the Bay Area; therefore, the project would have a less-than-significant impact. Given the limited footprint of the proposed facility and implementation of best

¹ “Fugitive” emissions generally refer to the emissions that are released to the atmosphere by some means other than through a stack or tailpipe.

management practices for dust control identified in **Measure AQ-1** and implementation of BACTs in the **Measure AQ-2**, below, potential air quality impacts would be reduced to less than significant and would not be cumulatively considerable.

- (e) Construction equipment generates exhaust, which can be considered an objectionable odor source. However, given the proximity of Santa Rita Road and Stoneridge Drive, odors associated with vehicle exhaust currently exist in the project vicinity. As construction activities would be short-term, the contribution to odors from project construction activities would be considered less than significant. An RO process is not a documented source of odors in the *BAAQMD CEQA Guidelines*. Treatment chemicals utilized in the process are not odorous with the exception of aqueous ammonia. Further, the treatment processes would be enclosed and would not generate odors off-site. The project therefore is expected to result in no adverse odor impacts.

Mitigation Measures

Measure AQ-1: Zone 7 or its contractors shall implement dust control measures to reduce fugitive dust generation during construction activities. At a minimum, contractor(s) shall be required to implement the following measures²:

- Water the construction site (with active excavation) including stockpiles (dirt, sand, etc.) at least twice daily. Stockpiles may be covered or non-toxic soil binders may be applied.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard. Tailgates of trucks shall be sealed.
- Sweep Stoneridge Drive daily with water sweepers during earthwork activities.
- Internal combustion engines shall be equipped with adequate mufflers.
- Excessive idling of vehicles shall be prohibited.

Measure AQ-2: Proposed facilities shall be designed to operate in compliance with applicable BAAQMD permit requirements and regulations. Zone 7 will review emission information with BAAQMD during permitting of the facility, and will apply BACTs, as appropriate.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐

² Control measures for construction emissions of PM-10 were adapted from BAAQMD's 1999 *CEQA Guidelines for Assessing the Air Quality Impact of Projects and Plans*.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

- (a) ESA conducted a field reconnaissance of the project site on August 1, 2002. With the exception of several trees along the north side of the property and a few scattered weeds, the site is devoid of vegetation. The landscape along Stoneridge Drive and outside of the fence line consists of oaks, German ivy, lawn grass and Indian hawthorn, while along Santa Rita Road, the trees consist of London planetree with Indian hawthorn planted underneath. The project site thus, provides limited habitat for plant or wildlife species. Special status³ species were not identified within the project area during the field reconnaissance. Therefore, impacts to any special status species are considered less than significant.
- (b) According to the East County Area Plan (ECAP) Plant Communities map, the project area is classified as “developed,” and no natural communities occur either in the area or in close proximity to the project area (Alameda County, 1993). The Arroyo Mocho is located immediately north of the site. At this location, the Arroyo Mocho consists of an improved trapezoidal flood control channel. The top of bank is separated from the project site by a chain link fence. Construction and operation of the facility would be confined to within the fenceline, and would not affect the flood control channel. However, installation of the blending pipeline would be within the flood control access road that runs along the trapezoid embankment. This existing access road is substantially above the vegetated bottom of the flood control channel, and is periodically mowed. Vegetation that would be

³ Species are accorded “special status” because of their recognized rarity or vulnerability to habitat loss or population decline. Some are formally listed and receive specific protection defined in federal or state endangered species legislation. Other species have no formal listing status as threatened or endangered, but are designated as “rare” or “sensitive” on the basis of policies adopted by state resource agencies or organizations with acknowledged expertise, such as the California Native Plant Society.

disturbed is limited to an approximately 25-foot wide area of non-native grasses and weedy species between the top of bank and the access road. Due to the limited nature of this disturbance, impacts to riparian habitat or any other sensitive natural community are considered less than significant. However, the proposed blending pipeline alignment may be located within California Department of Fish and Game (CDFG) jurisdiction, and pipeline installation may be subject to CDFG Code Section 1600 Streambed Alteration Agreement. Implementation of **Measure BIO-1** would reduce potential impacts to less than significant.

- (c) The Arroyo Mocho is located north of the project site. As previously noted, the top of the flood control embankment is separated from the parcel's northern boundary by an existing chain link fence. As indicated in (a), above, the project site is graded and no natural communities are located within the project site. No wetlands were found on the project site during field reconnaissance. Installation of the blending pipeline would be within the access road along the Arroyo Mocho flood control channel, which is located 10 to 15 feet above the bottom of the flood control channel and is substantially above ordinary high water (OHW). No wetlands occur along the proposed pipeline route. Therefore, no impacts to federally protected wetlands would occur. Section 404 permitting (under Clean Water Act) would not be required.
- (d) As indicated in (a), above, there are no special status species or natural communities that occur either in the area or in close proximity to the project area (Alameda County, 1993). Surveys for California red-legged frog conducted on Arroyo Mocho in the vicinity of the project site did not identify the presence of this species (ESA, 2002). The site has been graded, is nearly devoid of vegetation and is fenced off from Arroyo Mocho. Therefore, the occurrence of wildlife is expected to be low. The proposed project therefore, would not substantially interfere with the movement of wildlife through the area.

Proposed project construction would occur in close proximity to a stand of eucalyptus (*Eucalyptus* sp.) and pines (*Pinus* sp.) which may provide nesting habitat for raptors, although no nests were observed (ESA, 2002) and other protected birds. Project implementation would likely require pruning or removal of one tree onsite. Project activities may also result in indirect adverse impacts to protected birds resulting from construction noise. Nearly all breeding birds are protected under CDFG Code (Code) Section 3503 and raptors are protected under Section 3503.5. Section 3800 of the Code prohibits the taking of non-game birds, which are defined as birds occurring naturally in California that are not game birds or fully protected species. In addition Section 3513 of the Code and the federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989) prohibit the killing, possession, or trading of migratory birds. Implementation of **Measure BIO-2**, shown below, would reduce potential construction-related impacts on raptors to less-than-significant levels.

- (e) The project would not conflict with any local policies or ordinances protecting biological resources (City of Pleasanton General Plan, 1996; Alameda County, 1993); however, in the event tree removal is required, **Measure AES-2** would be implemented. Therefore, impact from the implementation of the project would be less than significant.
- (f) The project site is not within the jurisdiction of any habitat conservation plan or natural community conservation plans (CDFG, 2002b; USFWS, 2002b); therefore, no impact would result from implementation of the project.

Mitigation Measures

Measure BIO-1: Zone 7 shall review the final blending pipeline alignment plan with CDFG to establish whether pipeline installation would be subject to a Section 1600 Streambed Alteration

Agreement. In the event, CDFG indicates that the pipeline route is within its jurisdiction, Zone 7 shall obtain appropriate permits prior to pipeline installation. All areas within the Arroyo Mocho flood control channel that are disturbed during pipeline installation shall be restored to their pre-project condition.

Measure BIO-2: Avoid construction, including pruning or tree removal, during the nesting season (March 1 through August 15). If this is not feasible, a general survey for raptors and other breeding birds, as well as their nests, shall be conducted by a qualified biologist before construction to verify the absence of breeding birds. If the survey indicates the presence of nesting raptors or other protected birds, construction would be delayed until after nestlings have fledged.

		<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
V.	CULTURAL RESOURCES -- Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion

- (a) The Century House Bicentennial, designated as a Pleasanton Heritage Site (circa 1870's) and an English-Mohr House designated as an Alameda County Point of Historical Interest are located north of Mohr Avenue along Santa Rita Road in Pleasanton (Alameda County, 1993; ESA, 2002). These historical resources are located approximately one mile south of the project area. Construction of the proposed project would be confined to the project parcel and designated rights-of-way and would not affect these resources or result in any adverse change in the significance of the English-Mohr House and the Century House.

The project site has been periodically disturbed, including development of well facilities and installation of pavement onsite. William Self Associates (WSA) conducted a cultural resources record search encompassing the City of Pleasanton between Interstate 680 and the Chain of Lakes Area (WSA, 2002). The records search identified numerous prehistoric and historic sites within or abutting this extensive planning area. However, no resources were identified on the proposed project site. Two historic sites in addition to those previously discussed were identified within one mile of the project site. One site is the Arroyo Mocho canal, located immediately north of the project location; the other is the former Southern Pacific-San Ramon Valley Branch railroad grade, which is not located in the project site vicinity. Construction activities would be limited to onsite, but would include installation of the blending pipeline along the Arroyo Mocho access road. These areas have been previously disturbed as part of the grading for the flood control channel and access road, and are regularly maintained. Therefore, the potential to affect historical resources is considered low. Implementation of **Measures CR-1** and **CR-2**, which establish procedures to

follow in the event of an accidental find, would reduce potential construction-related impacts to a less-than-significant level.

- (b) The project area is considered an “extreme” sensitivity area based on East County Area Plan (ECAP)’s Archaeological Sensitivity Map (Alameda County, 1993). WSA (2002) records search identified three prehistoric sites, with burials, within one mile north of the proposed facility. There is a potential for disturbing unknown archaeological resources during excavation activities. Implementation of **Measures CR-1** and **CR-2**, which establish procedures to follow in the event of an accidental find, would reduce potential construction-related impacts to a less-than-significant level.
- (c) The site has been previously graded and no unique geological features or paleontological resources have been identified. As discussed in (b), above, there is a potential that paleontological resources may be encountered during excavation activities. Implementation of **Measure CR-1** would reduce potential impacts to less than significant.
- (d) As noted in (b) above, burials have been found in the three prehistoric sites surrounding the project area. **Measure CR-2** addresses the procedures that would be implemented in the event human remains are unearthed during construction, thereby minimizing the potential effect to a less-than-significant level.

Mitigation Measures

Measure CR-1: A qualified archaeologist, certified by the Registry of Professional Archeologists, shall be available if necessary, during all ground disturbing activities. If the contractor encounters cultural resources during construction, the contractor shall avoid any further disturbance of the materials and immediately discontinue earthwork within 100 feet of the find. The qualified archaeologist shall monitor and evaluate the significance of the find in accordance with accepted practices. Depending on the nature of the find, whether historical or archaeological, Zone 7 shall comply with Public Resources Code 21084.1 or 21083.2. Any identified archaeological resources shall be recorded by the archaeologist on Form “D” Public Resources (DPR) 422 (archaeological sites) and/or DPR 523 (historic properties) or similar forms.

Measure CR-2: In accordance with CEQA Guidelines Section 15064.5, in the event that prehistoric human remains are encountered, ground-disturbing activities at that location shall cease immediately, and there shall be no further excavation or disturbance of the site or any nearby areas reasonably suspected to overlie adjacent human remains until the County coroner makes a determination. If the coroner determines that the remains are Native American, then the Native American Heritage Commission in Sacramento shall be contacted within 24 hours, along with the Most Likely Descendant(s) of the deceased Native American, and disposition of the remains shall be in accordance with all applicable laws and regulations.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion

- (a) The project area is located in the San Francisco Bay Area, a region of high seismic activity. Faults located in the proximity of the proposed site include Northern Calaveras and Greenville faults to the east, Southern Hayward fault to the west, and Mt. Diablo fault to the north and east (Association of Bay Area Governments [ABAG], 2003). The Calaveras Fault, the closest fault to the project area, is delineated on the Alquist-Priolo Earthquake Fault Zoning Map (California Division of Mines and Geology, 1982a). Since the project site is located over seven miles to the east of this fault, the potential of exposure of people or structures to fault rupture due to the project is very low. The impact would be less than significant.

The project area would be subject to groundshaking intensities in the event of an earthquake centered on any of the potentially active faults in the region. According to ABAG, an earthquake on the Northern Calaveras fault would produce violent shaking. The Greenville fault is anticipated to produce the highest magnitude earthquake of 7.2. Because the project does not propose habitable structures, the potential for groundshaking impacts associated with the risk of loss, injury, or death would be considered a less than significant impact. Implementation of **Measure GEO-1** would ensure that potential impacts relating to ground shaking impacts would be reduced to a less-than-significant level.

Liquefaction, a secondary earthquake-induced hazard, occurs when water-saturated soils lose their strength and liquefy during intense and prolonged groundshaking. According to ABAG's Liquefaction Susceptibility in the Bay Area Map, liquefaction in the vicinity of the project site is considered high. Implementation of **Measure GEO-1** would ensure that potential impacts relating to liquefaction would be reduced to a less-than-significant level.

Saturated soil on slopes causes landslides. The topography of the project area including the project site is flat. No landslide activity is shown in the project vicinity in the City of Pleasanton General Plan (City of Pleasanton, 1996). The Relative Landslide Susceptibility for the project area is low (Alameda County, 1993). Due to the lack of topographic relief in the vicinity of the project site, potential impacts associated with landslide hazard would be less than significant.

- (b) Construction activities such as excavation would expose soils to wind and water erosion forces. Implementation of **Measure WQ-2** (see VIII, Hydrology and Water Quality) and **Measure AQ-1** (see III, Air Quality), which would reduce the potential for dust generation and water erosion, would reduce this impact to a less-than-significant level.
- (c,d) The United States Department of Agriculture (USDA) Soil Survey identifies native soil in the area as Sycamore silt loam (USDA, 1966). This soil is characterized by slow runoff, slight erosion hazard, very deep, well drained and moderately well drained soils on alluvial fans and floodplains. As previously discussed, the project site is located on a flat parcel with limited soil instability. Please also see item (a), above for a discussion of liquefaction. As the project does not propose habitable structures, the risk of the potential loss, injury or death of people would be considered less than significant. In addition, the design of proposed facilities would comply with the recommendations of a geotechnical investigation completed as part of project design (**Measure GEO-1**), as well as applicable UBC requirements. Therefore, potential impacts are expected to be less than significant.
- (e) No septic tanks or alternative wastewater disposal systems are proposed as part of the project; therefore, no impacts are anticipated.

Mitigation Measures

Measure GEO-1: Zone 7 will conduct a geotechnical study of the project site to determine appropriate construction methods and foundation design. The study will focus on seismic hazards and expansive soils. The project design will comply with the recommendations of the study, the latest version of the Uniform Building Code and the American Water Works Association design guidelines for seismically active areas.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion

(a,b) Construction activities would require the use of certain potentially hazardous materials such as fuels, oils, and solvents. These materials would generally be used for excavation equipment, generators, and other construction equipment and would be contained within vessels engineered for safe storage. Spills during on-site fueling of equipment or an upset condition (e.g., puncture of a fuel tank through operator error) could result in a release of fuel or oils into the environment. Implementation of **Measures HM-1** through **HM-5**, which requires incorporation of hazardous materials management, spill prevention, and spill response/cleanup measures in contractor specifications, would reduce impacts from hazardous materials release to a less than significant level.

Operation of the demineralization facility would require storage and handling of chemicals used in the treatment of water supplies for potable use (see **Chapter 1, Project Description**). The chemicals that would be stored onsite would include over 5,000 gallons of scale inhibitor and sodium hypochlorite, 2,000 gallons of aqua ammonia, and 7,000 gallons of caustic soda, which are commonly used in diluted liquid forms for water supply disinfection and treatment. Membrane cleaning chemicals and preservatives would be stored in powdered form (over 2,000 pounds (lbs) of sodium bisulfite and citric acid and 600 lbs of cleaning agents). Chemical deliveries would occur on the northeast portion of the building at the location of the chemical storage areas which would

facilitate easy access and transfer of material. This would also minimize the occurrence of spills. Chemicals are currently stored at the project site. The proposed project would result in an increase in quantities of the chemicals stored onsite. However, containment and other spill control measures would be implemented to prevent and control any spills (see **Measures HM-1** through **HM-5**).

All storage and use of hazardous materials would be in accordance with Uniform Fire Code and (California Occupational Safety and Health Administration [Cal/OSHA]) requirements for chemical storage, including secondary containment for all storage facilities. Hazardous materials storage, handling and disposal would be in conformance with Zone 7's most recent Hazardous Materials Business Plan. Specific design features, similar to those at existing well facilities, of the chemical storage containment and chemical feed lines that increase the safe handling of hazardous substances at the facility include:

- separate secondary containment for each chemical storage system;
- modernized control and chemical feed systems;
- secondary containment for the chemical feed lines;
- adequate separation of incompatible chemicals; and
- design of all chemical handling facilities to minimize or eliminate the risk of damage from earthquakes or other natural disasters.

These improvements would offset any increased potential for spills due to the storage of hazardous materials that would be used as part of the proposed project. In addition, Zone 7 has in place emergency response procedures that are included as part of their Hazardous Materials Business Plan (as required by CCR Title 6.95, Section 25500) and Spill Control and Countermeasure Plan (as required by CFR, Title 40, Section 112.7). These plans would be updated to reflect the hazardous substances used at the proposed well facilities as part of the proposed project.

Aqua ammonia is considered to be an acutely hazardous substance because of its volatility. Therefore, it is subject to additional regulation under the California Accidental Release Prevention (CalARP) Plan, if the maximum storage capacity exceeds 500 pounds of ammonia (CCR, 2002). The ammonia storage tank would have a capacity of 2,000 gallons. Safety requirements limit the storage of ammonia to 75 percent capacity, or 1,500 gallons. At an ammonia concentration of 18.5 percent, the maximum amount of ammonia contained in the storage tank would be 2,161 pounds. Therefore, ammonia would be subject to the CalARP regulation, which requires analysis of offsite consequence from an accidental release of aqua ammonia. If the estimated maximum offsite concentration of ammonia exceeds the toxic endpoint, as specified by the CalARP Regulation (150 parts per million [ppm]), then additional safety procedures must be implemented. The extent of additional safety procedures is dependent on whether the process involving ammonia qualifies as a Program 1 or a Program 2 process. According to the CalARP regulation, the ammonia handling would be a Program 1 process if, under worst-case conditions, an accidental release would result in an exceedance of the toxic endpoint at offsite locations.

A screening analysis was conducted for a worst-case accidental release, in accordance with the CalARP Regulation, by assuming that the entire contents of the storage tank would be released within 10 minutes (see **Table 1**). The EPA model RMP-COMP was used to calculate the distance to the toxic endpoint from such a worst-case release (USEPA, 2004). This distance was estimated to

be about 1,000 feet from the release. Since the calculated distance to the toxic endpoint is beyond the property boundary, the facility would be subject to the CalARP Program 2 level.

A facility subject to Program 2 must calculate the distance to the toxic endpoint from a more plausible (alternate) release scenario than the prescribed worst-case scenario. In addition, the facility must include both passive and active mitigation, if needed, to prevent offsite impacts. The alternate scenario assumed that there would be a puncture hole in the storage tank and that a release of aqua ammonia would occur for 5 minutes before mitigation measures would be implemented. The RMP-COMP model was used to calculate the toxic endpoint from such an accidental release. The distance to the toxic endpoint without active mitigation was estimated to be less than 500 feet. If active mitigation measures, as described below in **Measures HM-1 and HM-5** are implemented, the toxic endpoint would not extend beyond the property boundary. Thus, the impact would be less than significant.

TABLE 1
MODELING RESULTS FOR RISK ANALYSIS

RMP*Comp Ver. 1.07
Results of Consequence Analysis

Chemical: Ammonia (water solution) 20% CAS #: 7664-41-7 Category: Toxic Liquid Scenario: Alternative Quantity Released: 2160 pounds Release Duration: 5 minutes Storage Parameters: Tank under Atmospheric Pressure Hole or puncture area: 2 square inches Height of Liquid Column Above Hole: 24 inches Release Rate: 432 pounds per min Liquid Temperature: 70 F Mitigation Measures: Diked area: 400 square feet Dike height: 1 feet Release Rate to Outside Air: 10.6 pounds per minute Topography: Urban surroundings (many obstacles in the immediate area) Toxic Endpoint: 0.14 mg/L; basis: ERPG-2 Estimated Distance to Toxic Endpoint: <0.1 miles (<0.16 kilometers); report as 0.1 mile -----Assumptions about This Scenario----- Wind Speed: 3 meters/second (6.7 miles/hour) Stability Class: D Air Temperature: 77 degrees F (25 degrees C)	Chemical: Ammonia (water solution) 20% CAS #: 7664-41-7 Category: Toxic Liquid Scenario: Worst-case Quantity Released: 2161 pounds Liquid Temperature: 77 F Mitigation Measures: Diked area: 400 square feet Dike height: 1 feet Release Rate to Outside Air: 8.40 pounds per minute Topography: Rural surroundings (terrain generally flat and unobstructed) Toxic Endpoint: 0.14 mg/L; basis: ERPG-2 Estimated Distance to Toxic Endpoint: 0.2 miles (0.3 kilometers) -----Assumptions About This Scenario----- Wind Speed: 1.5 meters/second (3.4 miles/hour) Stability Class: F Air Temperature: 77 degrees F (25 degrees C)
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Source: USEPA, 2004; ESA, 2005

- (c) Fairlands Elementary School is located one quarter mile northeast of the project site on West Las Positas Road. Most of the chemicals proposed for storage and use onsite would be in liquid form and stored with secondary containment, while some of the membrane cleaning and preservative chemicals would be stored in powdered form. These materials are commonly used in water treatment and would be stored in stable form and in accordance with all applicable regulations, including Uniform Fire Code. Therefore, it is unlikely that project implementation could present a release risk to schools or residences within the project vicinity. However, Implementation of **Measure HM-1** would ensure this potential impact to be minimal.

- (d) The proposed project site has historically been owned and operated by the U.S. Army Camp Parks as a well field for water supply. ESA conducted a records search for known hazardous materials sites. The search did not identify any record of known hazardous materials storage or contamination at the project site. Given the site's prior use for water supply development and the lack of any identified contamination, the potential to encounter contamination onsite during project construction is considered low. Implementation of **Measures HM-2** through **HM-5**, which includes preparation of a Health and Safety Plan by the contractor, would further reduce the potential for exposure of workers to unknown hazardous materials. Therefore, potential impacts associated with the presence of hazardous materials contamination onsite would be reduced to a less-than-significant level.
- (e) The project site is located about three miles from the Livermore Municipal Airport's runway; however, it is within the Alameda County Airport Land Use Commission's (ALUC) general referral area (Alameda County, 1993). Since the project site is within this area, the proposed project must be submitted to the ALUC for a consistency determination prior to final approval. In addition, the project site is located in the ALUC height referral area (Alameda County, 1993). This area is three-dimensional and conical in shape. If the height of a proposed facility intrudes into the vertical dimension of the height referral area, then the project would be referred to the ALUC. The vertical dimension is measured by the following method: One foot in height is measured for every 100 feet horizontally measured from the runway to the closest point of the structure. As noted above, the project site is located three miles (or 15,840 feet) from the runway. Using the method, a building 158 feet tall would enter the air space; thus, requiring referral. The demineralization facility building, however would be approximately 36 feet tall, and thus is not considered within the airspace. Operation of the proposed facility would not result in a safety hazard for people residing or working in the project area.
- (f) The project is not located within the vicinity of a private airstrip; therefore, no impact related to air traffic hazards would occur.
- (g) Routine operation of the demineralization facility would involve minimal staff trips and operational activities, and therefore, not interfere with emergency response plans or emergency evacuation plans. Therefore, no impact would occur.
- (h) The project area is located within an urbanized area of the City of Pleasanton and would not extend into open space areas that would be subject to wildfire. Therefore, no impacts associated with establishment of new residences or facilities within areas prone to wildfire would occur.

Mitigation Measures

Measure HM-1: All storage and handling of hazardous materials onsite shall conform to the most recent Zone 7 Hazardous Materials Management Plan as well as Cal/OSHA and Uniform Fire Code requirements.

Measure HM-2: Zone 7 shall require the contractor to prepare, approve, and submit a Health and Safety Plan (Plan) that includes a project-specific contingency plan for hazardous materials and waste operations before site activities could proceed. The Plan shall be applicable to all excavation activities, shall establish policies and procedures to protect workers and the public from potential hazards posed by hazardous wastes. The plan shall be prepared according to federal and California OSHA regulations for hazardous waste site health and safety plans.

The plan shall include, but shall not be limited to, the following:

- A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage areas, access and egress routes, waterways, emergency assemble areas, temporary hazardous waste storage areas;
- Spill control and countermeasures, including employee spill prevention/response training; spill cleanup and dilution of spilled material; and
- Notification and documentation procedures.

Measure HM-3: Construction workers and Zone 7 personnel shall be appropriately trained in spill prevention, hazardous material control, and clean up of accidental spills.

Measure HM-4: The discharge of any hazardous or non-hazardous waste as defined in CCR Division 2, Subdivision 1, Chapter 2 shall be conducted in accordance with applicable state and federal regulations.

Measure HM-5: Proposed facilities shall be designed and constructed in accordance with California Accidental Release Prevention (CalARP) Plan requirements. Such a plan would include the installation of ammonia monitors to detect an accidental release of aqua ammonia, and to have a system that allows operators to shut-off an ammonia leak within 5 minutes or install a water deluge system that is capable of rapidly diluting a spill to prevent a vapor release.

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐

	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion

- (a, f) **Construction:** The proposed project could result in potential water quality impacts during its construction phase. Construction of the demineralization facility and the pipelines would involve excavation, soil stockpiling, boring, and grading that would dislodge soil particles and could potentially cause soil erosion. The dislodged soil particles, if not properly managed, could be washed into waterways by rain or by water used during construction. Thus, soil erosion could result in sedimentation in the Arroyo Mocho Canal just north of the project site. The San Francisco Bay RWQCB has listed Arroyo Mocho as an impaired water body for diazinon from urban runoff and storm sewers (RWQCB, 2003). However, the project site is not located on a sloping terrain therefore sedimentation would not be substantial. Further, the project would not add to the impairment of Arroyo Mocho and any sedimentation would be controlled using standard engineering and construction practices along with best management practices (BMPs), particularly at locations closer to storm drains and water bodies (see mitigation below).

Project construction would also involve use of motorized heavy equipment, including trucks and cranes that require fuel, lubricating grease, and other fluids. Accidental chemical release or spill from a vehicle or equipment could affect surface water. Such spills could also wash into nearby storm drains or infiltrate into soil affecting groundwater quality. However, the volume of material used would not be significant therefore potential impacts such as runoff and groundwater pollution are considered minimal. Zone 7 would comply with Title 9 of the City of Pleasanton Code and implement stormwater management plans and BMPs. Implementation of standard construction procedures and precautions as discussed in **Section VIII, Hazards and Hazardous Materials** would ensure that the impacts related to handling of chemicals from project construction would be less than significant.

The federal Clean Water Act (CWA) regulates construction or grading occurring on land parcels of one acre or more in size. The NPDES permit program under section 402(p) of the CWA controls water pollution by regulating stormwater discharges into the waters of the U.S. California has an approved state NPDES program. The project site is located on approximately one acre of existing graded site, therefore Zone 7 would be required to obtain a General Construction Permit prior to construction. As a part of the permit application, Zone 7 would submit a Notice of Intent (NOI) to the State Water Resources Control Board prior to construction, prepare and implement a

stormwater pollution prevention plan (SWPPP), and submit a Notice of Termination (NOT) at the end of construction. As a part of the SWPPP, Zone 7 would require construction contractors to implement BMPs. See **Measure WQ-2**.

Operation: The proposed project would add approximately 20,000 square feet of impervious surface onsite for the demineralization facility structure. Zone 7, as a part of the Alameda Countywide Clean Water Program (ACCWP), holds a NPDES Municipal Stormwater Permit that contains requirements to prevent stormwater pollution and to protect and restore creek and wetland habitat. The permit expires on February 19, 2008. The proposed project would adhere to the permit and ensure that stormwater pollution during the life of the project would be at a minimum by implementing measures such as keeping the impervious area including pavement at the site at a minimum and constructing stormwater bio-swales (as per the Grass Swale Design guidelines provided by the City of Pleasanton) along the north and east portions of the site to collect stormwater runoff and transport the water to a catch basin for discharge into the Arroyo Mocho. Implementation of such measures would ensure that the impact would be minimal.

Operational- RO Process Discharge: The proposed demineralization facility would process up to 7.7 mgd of source water, generating approximately 6.1 mgd of permeate and 1.6 mgd of concentrate. The RO plumbing drains and neutralized cleaning solutions would be discharged to the sanitary sewer. The water from the storm drains onsite, well water, and start-up flush water would flow to the Arroyo Mocho Canal in accordance with conditions of the ACCWP stormwater NPDES permit. Containment from chemical delivery trucks and storage tanks would be transported offsite.

The RO concentrate would be conveyed to the Livermore Interceptor and/or the DSRSD Export Pipeline (under the proposed Options 1 and 3, see Chapter 1, Project Overview and Description). The Livermore Interceptor extends between the Livermore WWTP and the junction structure connecting the DSRSD WWTP and the LAVWMA Export Pump Station. The Livermore Interceptor is located along the northern property line of the proposed project site. Connection of the interceptor with the facility would be made onsite. The DSRSD Export Pipeline conveys the treated wastewater from the DSRSD WWTP to the LAVWMA pump station. Prior to implementation, Zone 7 would enter into an operational agreement with the City of Livermore for the connection with the Livermore Interceptor and/or with DSRSD for the connection with the DSRSD Export Pipeline to establish appropriate operational parameters and sampling requirements. Zone 7 would monitor water quality at the location of the discharge of the RO concentrate line as required. Implementation of such a sampling program is established in **Measure WQ-1**. Prior to implementation, Zone 7 is expected to enter into an agreement with EBDA for discharge of RO concentrate into San Francisco Bay via the EBDA force main.

Zone 7 conducted sampling of the onsite water wells; Mocho 1, Mocho 2, Mocho 3, Mocho 4, and a shallow well (Army well) from June 2003 through January 2005. Since the shallow well is not currently proposed as a supply source, data collected from the onsite shallow well has not been included in water quality projections for permeate and concentrate.

The sampling results were used to project the anticipated concentrate and permeate concentrations. Water quality projections indicated that feed water TDS levels would be reduced from 520 mg/L to approximately 15 mg/L in the permeate. Based upon an operational blend of groundwater and permeate (the rate of which may vary), the resulting TDS in the delivered or finished water is projected to vary between approximately 150 to 310 mg/L. This would provide a low TDS supply source that, when coupled with other projects currently being implemented by Zone 7 (See **Chapter 1, Project Description**) would reduce system-wide average hardness of delivered water quality to within the WQMP hardness goal range of 75 to 150 mg/L as calcium carbonate. Projected

data indicates that the combination of these facilities along with AWTP Phase 2 would lower the overall system-wide average hardness closer to the lower hardness goal of 75 mg/L. Thus, Zone 7's water quality management projects would produce tangible improvements in delivered water quality to Zone 7 customers.

The analysis for the proposed project used the source water data for metals currently regulated under EBDA's NPDES permit to compare with anticipated project concentrate quality and examined whether the project would have the potential to contribute to any exceedance of the permit requirements established for EBDA. This analysis also examined the incremental load associated with project implementation as current potable groundwater use within the Zone 7 service area and whether it contributes to constituent loading within the wastewater discharged by EBDA through return of pumped groundwater to the wastewater stream. Based upon pumpage and return flow data, it is estimated that 48 percent of the groundwater pumped on an annual basis is returned to the wastewater stream, with the remaining 52 percent returned to the groundwater basin as irrigation.

Results of this analysis for constituents of concern (copper, nickel, mercury, and selenium identified in the EBDA permit), chromium, and TDS are presented in **Table 2**. The table compares current and projected water quality (concentrations) with and without the demineralization facility in operation, and identifies the change in water quality caused by the anticipated operations. The results indicate that the proposed discharge of RO concentrate into the LAVWMA Pipeline (via Livermore Interceptor and/or DSRSD Export Pipeline) would not affect compliance with NPDES permit requirements. The current and projected concentrations and mass loads of the metals in the concentrate and the blended water quality in the LAVWMA Pipeline were compared with the EBDA permit requirements and were found to be in compliance. At the EBDA point of compliance (POC), with up to 4,000 tons per year salt removal rate, discharge of the demineralization concentrate would result in a small net decrease in copper (0.10 micrograms per liter [µg/L] and nickel (0.01 µg/L) concentrations. There would be a slight net increase in selenium (0.26 µg/L) and chromium (0.29 µg/L) concentrations. Overall, the final concentrations of all the metals at the EBDA POC would remain substantially below the current and future potential EBDA permit levels (**Table 2**). The total projected mass of the constituents at the EBDA POC with and without the demineralization facility indicates minimal project impact, including mercury discharges, which would remain well below the current EBDA permit mass limit of 9.49 kilograms per year (kg/yr) and below the proposed future mass limit of 3.67 kg/yr. Project implementation would not cause exceedances of any current or likely future NPDES permit limits or water quality standards, and impacts would thus be less than significant.

Project contribution toward a cumulative water quality impact, i.e., in combination with other effluent streams contributing to EBDA, was assessed based on the *Anti-Degradation Analysis for Proposed Wastewater Treatment Plant Discharge Modification* (Larry Walker and Associates, June 2005) (ADA). This analysis examined future increase of the EBDA discharge from 97.1 mgd to 112.1 mgd and included 3.2 mgd of RO concentrate flow from the proposed Zone 7 demineralization facilities within the overall EBDA discharge. According to the ADA, the future increased EBDA discharge (including Zone 7 concentrate) would result in minor increases in pollutants and would not cause exceedance of regulatory limits. With respect to mercury, the analysis notes that a Total Maximum Daily Load (TMDL) for mercury is in the process of being established by the RWQCB that includes a proposed load allocation of 3.67 kg/yr for EBDA that would replace the current interim mercury mass limit of 9.49 kg/yr. The ADA confirmed that the increased EBDA flow (including Zone 7 concentrate) would comply with this load allocation.

TABLE 2
CURRENT AND PROJECTED WATER QUALITY CONDITIONS

Constituent	Source Water (µg/L) ^a	Estimated RO Concentrate Concentration (µg/L)	Year 2004 Average Concentration at EBDA POC (µg/L)	Total Projected Concentration at EBDA POC (µg/L)	Estimated Mass Current Return Load to LAVWMA without Demin Plant (kg/yr) ^{b,d}	Estimated Mass Load to LAVWMA with Demin Plant (kg/yr) ^{c,e}	Total Projected Mass at EBDA POC without Demin Plant (kg/yr) ^{b,d}	Total Projected Mass at EBDA POC with Demin Plant (kg/yr) ^{c,e}	Current EBDA Permit Limits		Comply Y/N	Future Potential EBDA Limits		Comply Y/N
									µg/L	kg/yr		µg/L	kg/yr	
Copper	1.01	5.07	11.58	11.48	3.09	8.04	1,546	1,551	23	NA	Yes	20	NA	Yes
Nickel	0.98	4.89	5.56	5.55	2.98	7.77	744	749	21	NA	Yes	88	NA	Yes
Mercury	0.007	0.037	0.017	0.017	0.023	0.059	2.29	2.32	0.21	9.49	Yes	0.087	3.67	Yes
Selenium	3.18	15.91	0.54	0.78	9.70	25.26	81.9	97.5	50	NA	Yes	NA	NA	NA
Chromium	4.02	20.08	1.22	1.51	12.24	31.88	175	194	NA	NA	NA	NA	NA	NA
	(mg/L)	(mg/L)			(tons/yr) ^{2,4}	(tons/yr) ^{3,5}								
TDS	522	2,610			1,900	4,700								

POC = Point of Compliance is the point of discharge into the Bay.

kg/yr = kilograms per year

Data assumes LAVWMA flow: 31.8 mgd. Other EBDA flow (no LAVWMA): 80.3 mgd. Total EBDA flow: 112.1 mgd. Other EBDA (no LAVWMA) at 10% recycled flow, Livermore at 20% recycle flow, and DSRSD at 30% recycled flow.

^a Groundwater concentrations represent a blend of water from Mocho well field.

^b Assumes that 48% of groundwater pumped and delivered to system is exported to LAVWMA (48% of 6.13 mgd = 2.94 mgd) and 52% used for irrigation.

^c Assumes a 20% increase in groundwater pumping due to concentrate production in RO process (7.66 mgd).

^d Assumes that the Mocho wells operate 9 months in a year.

^e Assumes that the demineralization facility operates 9 months in a year.

SOURCE: Carollo Engineers, 2005

The analysis concludes that the proposed EBDA discharge increase would not have a measurable impact on ambient levels of any pollutant contained within the EBDA discharge, that the increased discharge would not adversely impact beneficial uses of San Francisco Bay, and that the proposed EBDA discharge is consistent with the purpose and intent of the federal and state antidegradation policies (Larry Walker Associates, 2005). Considering that the RO concentrate would form only 3 percent of the future EBDA discharge, and would comply with current and likely future EBDA permit levels, the project would not have a cumulatively considerable impact on the discharged water quality in San Francisco Bay. As such, when considered with other projects within the region, the proposed project's contribution is not cumulatively considerable. Therefore, potential cumulative impacts are considered less than significant.

- (b) Project implementation would assist Zone 7 in managing groundwater quality within the Main Basin by providing a salt management tool to be operated on a seasonal basis to balance salt inputs into the Main Basin. The project would pump high TDS groundwater from existing potable water wells, and would treat the water using RO treatment process to produce a low TDS permeate for blending into its distribution system.

The Main Basin underlies the majority of the Valley and includes the Amador, Bernal, Mocho, and Castle Subbasins. The surface of the basin (the valley floor) slopes to the west, and ranges in elevation from 700 feet in the upper reach of Arroyo Valley along the southeast to about 300 feet along Arroyo de la Laguna to the southwest where surface water exits the basin. The Main Basin is a multi-layered system having an upper unconfined aquifer overlaying a sequence of semi-confined aquifers. The general dividing line between the upper and deeper aquifers is considered to be approximately 100 feet below land surface. The Upper Aquifer of the Main Basin has good hydraulic conductivity. The main components of recharge for the upper aquifer are rainfall and irrigation, stream recharge, fringe basin subsurface inflow, and groundwater inflow from deep aquifers at some locations.

TDS loading within the basin is locally variable, and is relative to the TDS of the locally recharged water. The largest TDS inputs appear to be natural sources and infiltration of irrigation water. Hydraulic conductivity between the upper aquifer and the lower aquifer, which is used for municipal pumping, has resulted in TDS loading to the Main Basin, and groundwater quality has been steadily degrading. The long-term average net salt loading rate under 2003 land use conditions was approximately 4,000 tons per year.

Project implementation would allow Zone 7 to actively manage salt loading within the basin on an annual basis. This would be achieved through treatment of potable supplies pumped as part of Zone 7's groundwater management, providing the ability to remove up to 4,000 tons of salt annually. This will essentially "zero-out" or balance the salt loading inputs to the system on an annual basis, thereby reducing the historical trend of reduced groundwater quality within the Main Basin.

Source water for the demineralization facility would be generated by existing Zone 7 potable supply wells. The demineralization facility would be operated within the context of Zone 7's overall management of the Main Basin through conjunctive use practices, as recently defined in the Well Master Plan. Therefore, project implementation would not result in a net deficit in aquifer volume or a lowering of the local groundwater table that would affect existing or planned land uses within the area. To quantify the impacts of the proposed project on the groundwater levels, Zone 7 staff has modeled the basin using the same model used for the Salt Management Plan and Well Master Plan. Specifically, Zone 7 modeled the "worst case" scenario for the Mocho 7.7 alternative of continuous, year-round pumping from the Mocho wells 1, 2, and 3 for RO treatment and blending. This scenario represents removal of substantially greater amounts of groundwater than in

the anticipated 9-month operations scenario. The modeling results indicate that the water level would remain 58 feet above historic lows even with year round, continuous pumping. This indicates that the objective of maintaining groundwater levels above the historic low levels would be met by the proposed project. The project would result in the discharge of the RO concentrate into the Bay, however, the discharge (loss) would be balanced by the region's ability to recycle water once projects are in place. Therefore, the impact is considered less than significant.

With respect to groundwater recharge, the project site is currently vacant, with limited paved areas associated with the existing water production wells and paved access to these facilities. The remainder of the site is covered with a gravel layer for access and weed control. Project implementation would incrementally increase the amount of impervious surface area onsite, however, this level of incremental reduction in groundwater recharge surface area would not affect rates of recharge within the Main Basin. Therefore, impacts are considered less than significant.

- (c-f) The proposed project would not significantly alter the drainage patterns on the existing parcel, which is relatively flat and which drains to existing storm drains onsite. There would be no significant change in drainage patterns or in the course of any river or stream that would result in erosion or other degradation of surface water quality. However, as stated in a) above, the project would add new impervious surfaces (e.g., paved surface, demineralization facility roof) onsite that would reduce infiltration of water and cause increased storm runoff. Further, as discussed in a) above, Zone 7 would implement stormwater source control and treatment measures to reduce the overall storm runoff flowing into the storm drains and Arroyo Mocho. The proposed facility and site design would collect and convey stormwater to the existing stormwater drains, which discharge to Arroyo Mocho and are sized to accommodate the drainage of the site. Sizing of storm drains would adhere to the City of Pleasanton's stormwater design criteria. Thus, the impact of erosion and flooding offsite would be less than significant.
- (g-i) The proposed project is limited to the implementation of water treatment facilities and would not include development of residential housing. The proposed facility is not located within the 100-year floodplain (City of Pleasanton, 1996), which is contained within the Arroyo Mocho channel. The facility, along with most of the city of Pleasanton, is located within Del Valle Reservoir flood inundation area (City of Pleasanton, 1996). Since the facility does not include permanent occupation, does not lie within a 100-year floodplain, and would not contribute to the potential for dam failure, the project would not expose people to a significant risk of loss. Therefore, no impact would occur.
- (j) Because of the location of the project site far from the Golden Gate in San Francisco Bay, the influence of an ocean-borne tsunami wave would dissipate prior to reaching the city of Pleasanton. Because the fault structures in the Bay Area displace laterally, the chances of a tsunami generated east of the Golden Gate are very low. Seiches form in enclosed bodies of water, such as lake or reservoir. There is no enclosed water body in the immediate site vicinity. Therefore risk from seiche is considered less than significant. Since the project site is flat, the possibility of a mudflow is considered very low. There is an existing building structure (Mocho 4 well facility) on the project site, therefore the proposed project is not expected to exacerbate the risks to tsunami, seiche or mudflows. Therefore, no impact is expected.

Mitigation Measures

Measure WQ-1: Zone 7 may enter into an agreement as appropriate with EBDA, the City of Livermore prior to routing the RO concentrate through the Livermore Interceptor, DSRSD for the DSRSD Export Pipeline and the Abandoned DSRSD Pipeline, and LAVWMA establishing operational parameters and sampling requirements. The agreements and the RO concentrate discharge parameters would be in compliance with the applicable permit/s.

Measure WQ-2: Zone 7 shall require contractors to implement BMPs for construction activities as specified by the California Storm Water Best Management Practices Handbook (Stormwater Quality Task Force, 1993) and/or the Manual of Standards for Erosion and Sediment Control Measures (ABAG, 1995). The BMPs include measures guiding the management and operation of construction sites to control and minimize the potential contribution of pollutants to storm runoff from these areas. Erosion and sedimentation control practices include installation of silt fencing, straw wattle, soils stabilization, revegetation, and runoff control (e.g., detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sand bag dikes) to limit increases in sediment in stormwater runoff and avoid chemical spills by implementing **Measures HM-1** through **HM-4**.

	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
IX. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion

- (a) The project is located at the intersection of Santa Rita Road and Stoneridge Drive on a parcel currently developed for water facilities. The proposed use would be consistent with historical use of the project site for water production. Nearby uses include well facilities, residential, and commercial areas. Thus, project implementation would not divide an established community. Therefore, no impact would occur.
- (b) The City of Pleasanton General Plan (1996) identifies the project site as “Public Health and Safety” (Pavan, 2006) and the City of Pleasanton zoning designation for the site is “Public and Institutional Land” (City of Pleasanton, 2005). The project is consistent with the plan and zoning of the parcel and would not conflict with any land use plan, policy, or regulation of an agency. There would be no impact.
- (c) As indicated in **Section IV, Biological Resources**, the project site is not within the jurisdiction of a habitat conservation plan or natural community conservation plans. Therefore, no impact would occur.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

(a,b) According to the Mineral Land Classification Map, the project site is located in an area known to contain mineral deposits (i.e., aggregates—sand, gravel, and crushed stone), but the significance cannot be determined from available data (California Division of Mines and Geology, 1982b). The project site lies outside of the City of Pleasanton's designated sand and gravel harvesting area (1996). The size of the parcel would not make it economically feasible to mine aggregates. In addition, surrounding land uses, primarily the presence of single-family residences, would prevent sand and gravel harvesting. Project implementation would not result in the loss of regionally or locally significant mineral resources. Therefore, no impacts would occur.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
XI. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

(a,c,d) Noise in the project area is generated primarily from traffic along Santa Rita Road and Stoneridge Drive (City of Pleasanton, 1996). Appropriate interior noise levels in commercial, industrial, and office buildings are a function of the use of space. Considering the overall land use in the project area, exterior noise exposure of 60 to 70 Ldn⁴ acceptable for residential and commercial uses respectively (City of Pleasanton, 1996) could be used as a standard for the project noise levels. Some land uses are more sensitive to ambient noise levels than others, due to the amount of noise exposure and types of activities typically involved. Noise sensitive land uses include residential areas (Alameda County, 1993). The nearest residences are approximately 100 feet north of the project site, across Arroyo Mocho. The residential development south of Stoneridge Drive has a sound wall and provides noise mitigation for Stoneridge Drive. Construction of the proposed facility would increase noise levels temporarily in the project vicinity. Typical construction equipment noise levels range from 79 to 91 dBA, Leq⁵ at 50 feet from the noise source. The project area already experiences noise levels between 65 and 70 Ldn. Noise impacts from the use of construction equipment are limited to specified hours of work (see **Measure N-2**) and for the duration of construction. Noise levels fluctuate depending on the type of equipment used, the phase of construction, and the distance to nearest sensitive receptors. Potentially significant impacts from construction noise levels would be reduced to less than significant levels with mitigation.

Project design would include enclosure of proposed facilities to provide for appropriate noise control. Implementation of **Measure N-1**, which includes establishment of noise performance standards equivalent to the City of Pleasanton Noise Ordinance, would also reduce operational noise to a less than significant level. The water demineralization facility is a non-critical facility and back-up generators are not necessary; therefore, there would be no noise impacts associated with use of generators.

- (b) Construction of the facility and the pipelines would not require pile-driving or other vibratory construction techniques that generally cause excessive ground borne vibration and noise levels. Therefore, no impact would occur.
- (e, f) The project site is located about three miles from the Livermore Municipal Airport's runway. There are no private airstrips within two miles of the project site. The project would not expose people working in the project area to excessive noise levels and no housing is proposed.

Mitigation Measures

Measure N-1: Zone 7 shall design and construct the proposed facility such that operational noise does not exceed 60 Ldn at the nearest property line.

Measure N-2: In general, construction work shall be conducted during daytime hours (8 a.m. to 5 p.m.). All onsite construction equipment with internal combustion engines shall be equipped with adequate mufflers.

⁴ Ldn is the average day and night noise level that accounts for the difference in response of people to both day and night time noise. Each nighttime noise event is multiplied by a factor of ten, which is approximately equal to a doubling in perceived loudness, to compensate for people's increased sensitivity during nighttime hours. The Ldn is used to evaluate the noise exposure in Pleasanton.

⁵ Leq, the energy-equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level that actually occurs during the same period.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

- (a) The proposed project would remove salts from the groundwater basin at the point of extraction. This activity is consistent with Zone 7's SMP, which identified policies to offset salt loading, maintain or improve groundwater mineral quality, and to maintain or improve delivered water quality. Project implementation would not provide a new or increased water supply source, which could induce substantial population growth. Rather, the demineralization project along with the proposed pipeline alignments would allow Zone 7 to effectively meet its water quality goals; therefore, the project would not induce substantial growth.
- (b, c) The proposed project would involve the construction of a demineralization facility on a vacant parcel of land, adjacent to an existing Zone 7 well facility and pipelines underneath the existing roadways. There is no existing housing on the project site. Therefore, the proposed project would not necessitate construction of replacement housing elsewhere. No impacts to population or housing would occur.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
XIII. PUBLIC SERVICES --				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion

- (a) The proposed project is limited to the construction of a demineralization facility and pipeline alignments and operation of the facility. Project construction and operation would not involve alteration of government facilities, nor would it require new government facilities. In addition, the project would not alter or increase demands for public services, or affect the performance standards of public services. Therefore, no physical or environmental impacts associated with the provision of new or altered governmental facilities would result.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

- (a,b) The proposed project does not propose additional water supply to meet additional population growth. The project would not result in the alteration or deterioration of existing recreational facilities. Installation of the blending pipeline would not interfere with plans to construct a Class A trail along Arroyo Mocho (City of Pleasanton, 1996), as the proposed pipeline would be located underground. There would be temporary construction impacts to the access to the trail; however, the current condition of the access road would be restored. Therefore, project implementation would not result in any impacts to recreational uses or facilities.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
XV. TRANSPORTATION / TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. TRANSPORTATION / TRAFFIC – (cont.)				
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion

(a,b) Traffic counts for Santa Rita Road are provided by the City of Pleasanton. The average daily traffic (ADT) for Santa Rita Road, north of Stoneridge Drive is 38,231 trips per day. Access to and from the project site would be from Stoneridge Drive. Construction-related traffic is associated primarily with delivery of material and equipment, and transport of construction workers. The primary off-site impacts from construction truck traffic would include intermittent reduction of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles during the duration of construction, which would roughly be eighteen months. The number of trips associated with construction of the proposed facility would not increase traffic substantially due to the temporary nature of activities and relative to the existing traffic volume at these roadways. Pipeline segments would be installed using jack and bore tunneling method, thus reducing the overall traffic congestion impacts. As the proposed project would not result in any long-term degradation in operating conditions or level of service on either Santa Rita Road or Stoneridge Drive due to the intermittent and temporary nature of construction-related traffic, potential impacts would be considered less than significant. However, **Measure T-1** is recommended to reduce potential impacts associated with intermittent increase in traffic volume and congestion.

The number of trips associated with operation of the facility would be approximately three every month for chemical deliveries, and approximately 22 trips every week for routine operation and maintenance for staff traveling to and from the facility. Therefore, potential impacts on roadway volumes would be considered less than significant given the number of vehicles on Santa Rita Road and Stoneridge Drive.

- (c) As discussed in **Section VII, Hazards and Hazardous Materials**, Livermore Municipal Airport is located at approximately 3 miles east of project site. The proposed demineralization facility would not intrude into the airport's air space; therefore, no impact would occur.
- (d,e) The project does not propose design features that would result in safety risks. In addition, the project would not create transportation hazards or obstructions to emergency access. Although construction of pipeline alignments may include temporary changes in traffic, it is anticipated to have short term minimal impacts on emergency access or cause any traffic hazard. Thus, impacts would be less than significant.
- (f) Staging of equipment and material and construction worker traffic would be accommodated within the project site, away from public access or circulation. The site would be designed with its own parking spaces; therefore, no impacts associated with the displacement of parking would occur.

- (g) The project would not conflict with adopted policies supporting alternative transportation because the project would not generate a substantial increase in traffic (see items (a, b), above). There would be no impact

Mitigation Measures

Measure T-1: Zone 7 shall require its contractor to submit Traffic Control Plans for ingress and egress to the project site during construction, and for any work occurring outside of the fence line that could affect traffic on Stoneridge Drive. At a minimum, construction signage shall be posted at the project site warning the public of construction work and to exercise caution. When necessary, to provide for equipment and deliveries, flagmen shall be used for temporary truck access. In the event temporary lane closure is required, contractor shall submit the Traffic Control Plan to the City of Pleasanton for review and comments.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion

- (a) The project would comply with any pre-treatment ordinances for Cities of Dublin, Pleasanton, and/or Livermore. Please refer to the discussion for **Section VIII (a), Hydrology and Water Quality**. The impact would be less than significant.
- (b) Project operation would be on a seasonal basis, depending upon the capacity within the Livermore Interceptor and/or DSRSD Export Pipeline to accommodate the RO concentrate disposal.

Therefore, project implementation would not require the expansion of wastewater treatment or existing conveyance facilities. The proposed facility would contribute to improved delivered water quality. Therefore, no impact would occur.

- (c) Since the project area is already developed in nature, the existing stormwater system, and the area is zoned for development, the minor increase in impervious surface would not necessitate the expansion or construction of new stormwater drainage facilities that would cause significant adverse impacts. Impact would be less than significant.
- (d) The proposed project would not require new water entitlements, as the project does not propose to increase the water supply; rather the project would improve the water quality of its existing water supply. The project would remove salt from groundwater as part of Zone 7's water quality management plan. Therefore, no impact would occur.
- (e) As noted in items (a) and (b) above, the project would comply with the interruptible capacity of the Livermore Interceptor and/or DSRSD pipeline to convey the RO concentrate. In general, the system does not have available capacity during the peak, winter months. The project would not result in the need to expand the Livermore Interceptor and/or DSRSD Export Pipeline capacity in order to meet its salt removal goals. Therefore, no increase in demand for wastewater treatment capacity would occur.
- (f,g) Solid waste generation would be limited to construction activities and would not affect available solid waste disposal capacity in the region. The contractor would be required to comply with all pertinent regulations regarding the disposal of solid waste generated by construction activities. No long-term solid waste generation would be associated with the proposed project, and thus no impact is expected.

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

- (a) Impact analysis in all the sections above show that the proposed project would not permanently degrade the quality of the environment during construction and operation. Potential impacts associated with increased dust, noise, and hazards would be reduced to less than significant levels with implementation of proposed mitigation measures, as summarized in Chapter 3 of this document.
- (b) There are no new projects identified in the near future in the vicinity of the project area (City of Pleasanton, 2004). Additional Zone 7 programs that could result in improvements within the project area include the Zone 7 Stream Management Master Plan (SMMP), which includes sediment removal from Arroyo Mocho. The proposed project site is also located with the Mocho Wellfield area identified in the Zone 7 Well Master Plan Environmental Impact Report. Under the Well Master Plan, new production wells could be located within this wellfield; however, the Mocho Wellfield has been identified as a low priority wellfield, and the likelihood of additional production well construction within the Mocho Wellfield is low. Additionally, development projects are proposed within the cities of Pleasanton, Dublin and Livermore under the approved General Plans of these municipalities. During construction of the demineralization facility, project implementation could contribute to cumulative construction related impacts associated with the developments within the Livermore Valley. However, implementation of the mitigation measures identified in this report would reduce those impacts to a less-than-significant level and would ensure that the proposed project's contribution is less than cumulatively considerable.

The project's environmental impacts would be limited primarily to short-term effects related to construction. Long-term effects such as stormwater control would be reduced to a less-than-significant level through regulatory compliance and implementation of mitigation measures. Project implementation would result in air emissions and discharge of the RO concentrate that would be potentially significant impacts. However, the potential impacts for these two issue areas would be less than significant due to the limited nature of these releases and the mitigation measures established, including compliance with current and future regulatory standards (see III, Air Quality and VIII, Hydrology and Water Quality). As such, when considered with other projects within the region, the proposed project's contribution is not cumulatively considerable. Therefore, potential cumulative impacts are considered less than significant.

- (c) The impact analysis in this chapter indicates that the project would not have environmental effects that would cause substantial adverse impacts on humans. Implementation of the proposed mitigation measures would ensure the impacts to be minimal.

SECTION 3

Summary of Mitigation Measures

The following is a summary of mitigation measures integrated into the project which are adequate to reduce all potentially significant impacts to a less-than-significant level.

3.1 Aesthetics

Measure AES-1: In the event tree removal is required, Zone 7 shall review tree status relative to the City of Pleasanton Heritage Tree Ordinance, and shall acquire a permit as appropriate.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 contracts with arborist to review tree status	1. Zone 7 contract entered into administrative record	1. Zone 7	1. During design
2. Zone submits permit application to City for removal	2. Zone 7 receives permit	2. Zone 7	2. Prior to construction

Measure AES-2: Zone 7 shall provide facility plans to DSRSD and the City of Pleasanton at appropriate design phase to provide an opportunity for review and comment.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 submits Architectural and Landscape Plans to the DSRSD and City of Pleasanton for review.	1. Zone 7 receives DSRSD land use agreement and City of Pleasanton comments.	1. Zone 7	1. 30% design phase
2. Architect, at Zone 7's authorization, incorporates the City's comments in next design submittal	2. Zone 7 receives next design submittal	2. Zone 7	2. Prior to construction

Measure AES-3: Zone 7 shall ensure that all permanent exterior lighting is directed downward and oriented to insure that diffused light does not affect surrounding properties. In addition, highly reflective building materials and/or finishes shall not be used in the designs for proposed structures.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes lighting requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor installs lighting per construction specifications.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

3.2 Air Quality

Measure AQ-1: Zone 7 or its contractors shall implement dust control measures to reduce fugitive dust generation during construction activities. At a minimum, contractor(s) shall be required to implement the following measures¹:

- Water the construction site (with active excavation) including stockpiles (dirt, sand, etc.) at least twice daily. Stockpiles may be covered or non-toxic soil binders may be applied instead of watering.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. Tailgates of trucks shall be sealed.
- Sweep Stoneridge Drive daily with water sweepers during earthwork activities.
- Internal combustion engines shall be equipped with adequate mufflers.
- Excessive idling of vehicles shall be prohibited.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes dust control measures in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure AQ-2: Proposed facilities shall be designed to operate in compliance with applicable BAAQMD permit requirements and regulations. Zone 7 will review emission information with BAAQMD during permitting of the facility, and will apply BACTs, as appropriate.

¹ Control measures for construction emissions of PM-10 were adapted from BAAQMD's CEQA Guidelines for Assessing the Air Quality Impact of Projects and Plans.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes BAAQMD permit requirements and regulations in project design.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements design requirements and BACTs.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

3.3 Biological Resources

Measure BIO-1: Zone 7 shall review the final blending pipeline alignment plan with CDFG to establish whether pipeline installation would be subject to a Section 1600 Streambed Alteration Agreement. In the event, CDFG indicates that the pipeline route is within its jurisdiction, Zone 7 shall obtain appropriate permits prior to pipeline installation. All areas within the Arroyo Mocho flood control channel that are disturbed during pipeline installation shall be restored to their pre-project condition.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 shall review final pipeline alignment with CDFG to determine jurisdiction.	1. Zone 7 send pipeline route and request to CDFG	1. Zone 7	1. Prior to construction
2. Zone 7 shall acquire appropriate permits as determined by CDFG	2. Zone 7 prepares and submits appropriate permit application, most likely Streambed Alteration Agreement	2. Zone 7	2. Prior to construction
3. Zone 7 implements construction under permit conditions	3. Sign-off by Zone 7 that measures contained in permit are being implemented	3. Zone 7	3. During construction
4. Zone 7 ensures contractor restored disturbed areas to pre-project conditions.	4. Sign-off by Zone 7 that disturbed areas restored.	4. Zone 7	4. Following Construction

Measure BIO-2: Avoid construction, including pruning or tree removal, during the nesting season (March 1 through August 15). If this is not feasible, a general survey for raptors and other breeding birds, as well as their nests, shall be conducted by a qualified biologist before construction to verify the absence of breeding birds. If the survey indicates the presence of nesting raptors or other protected birds, construction would be delayed until after nestlings have fledged.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 shall contract with a qualified biologist to conduct a pre-construction survey if during the nesting season.	1. Zone 7 executes contract	1. Zone 7	1. Prior to construction
2. Zone 7 shall include potential work limitations in construction specifications.	2. Zone 7 reviews construction specifications.	2. Zone 7	2. Prior to construction
3. If nesting raptors are found biologist shall identify appropriate actions to avoid effects.	3. Sign-off by Zone 7 that measures are being implemented.	3. Zone 7	3. During construction

3.4 Cultural Resources

Measure CR-1: A qualified archaeologist, certified by the Registry of Professional Archeologists, shall be available if necessary, during all ground disturbing activities. If the contractor encounters cultural resources during construction, the contractor shall avoid any further disturbance of the materials and immediately discontinue earthwork within 100 feet of the find. The qualified archaeologist shall monitor and evaluate the significance of the find in accordance with accepted practices. Depending on the nature of the find, whether historical or archaeological, Zone 7 shall comply with Public Resources Code 21084.1 or 21083.2. Any identified archaeological resources shall be recorded by the archaeologist on Form “D” Public Resources (DPR) 422 (archaeological sites) and/or DPR 523 (historic properties) or similar forms.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes procedures associated with encountering of cultural resources in construction specifications including an onsite archaeologist if necessary , during all ground disturbing activities.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. In the event that cultural resources are found, construction shall stop and a qualified archaeologist shall be consulted.	2. Copies of DPR 422 or 523 shall be retained in the Zone 7 files.	2. Zone 7	2. During construction

Measure CR-2: In accordance with CEQA Guidelines Section 15064.5, in the event that prehistoric human remains are encountered, ground-disturbing activities at that location shall cease immediately, and there shall be no further excavation or disturbance of the site or any nearby areas reasonably suspected to overlie adjacent human remains until the County coroner makes a determination. If the coroner determines that the remains are Native American, then the Native American Heritage Commission in Sacramento shall be contacted within 24 hours, along with the Most Likely Descendant(s) of the deceased Native American, and disposition of the remains shall be in accordance with all applicable laws and regulations.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 shall include procedures associated with encountering pre-historic human remains in construction specifications.	1. Zone 7 reviews contractor specifications.	1. Zone 7	1. Prior to construction.
2. In the event prehistoric human remains are found, work shall stop and procedures identified above shall be followed.	2. Zone 7 retains agreement with Native Americans in Zone 7 files.	2. Zone 7	2. During construction; before construction recommences

3.5 Geology and Soils

Measure GEO-1: Zone 7 will conduct a geotechnical study of the project site to determine appropriate construction methods and foundation design. The study will focus on seismic hazards and expansive soils. The project design will comply with the recommendations of the study, the latest version of the Uniform Building Code and the American Water Works Association design guidelines for seismically active areas.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 conducts a geotechnical study and includes recommendations in construction.	1. Zone 7 incorporates study into construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

3.6 Hazards and Hazardous Materials

Measure HM-1: All storage and handling of hazardous materials onsite shall conform to the most recent Zone 7 Hazardous Materials Management Plan as well as Cal/OSHA and Uniform Fire Code requirements.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure HM-2: Zone 7 shall require the contractor to prepare, approve, and submit a Health and Safety Plan (Plan) that includes a project-specific contingency plan for hazardous materials and waste operations before site activities could proceed. The Plan shall be applicable to all excavation activities, shall establish policies and procedures to protect workers and the public

from potential hazards posed by hazardous wastes. The plan shall be prepared according to federal and California OSHA regulations for hazardous waste site health and safety plans.

The plan shall include, but shall not be limited to, the following:

- A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage areas, access and egress routes, waterways, emergency assemble areas, temporary hazardous waste storage areas;
- Spill control and countermeasures, including employee spill prevention/response training; and
- Notification and documentation procedures.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 prepares a Health and Safety Plan	1. Zone 7 incorporates plan in construction specifications.	1. Zone 7	1. Prior construction.
2. Zone 7 implements the plan	2. Zone 7 signs-off that measures have been implemented.	2. Zone 7	2. During construction

Measure HM-3: Construction workers and Zone 7 personnel shall be appropriately trained in spill prevention, hazardous material control, and clean up of accidental spills.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure HM-4: The discharge of any hazardous or non-hazardous waste as defined in CCR Division 2, Subdivision 1, Chapter 2 shall be conducted in accordance with applicable state and federal regulations.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure HM-5: Proposed facilities shall be designed and constructed in accordance with CalARP requirements. Such a plan would include the installation of ammonia monitors to detect an accidental release of aqua ammonia, and to have a system that allows operators to shut-off an ammonia leak within 5 minutes or install a water deluge system that is capable of rapidly diluting a spill to prevent a vapor release.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes CalARP requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction and operation
2. Contractor implements measures during construction. Zone 7 implements during operations.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

3.7 Hydrology and Water Quality

Measure WQ-1. Zone 7 may enter into an agreement as appropriate with EBDA, the City of Livermore prior to routing the RO concentrate through the Livermore Interceptor, DSRSD for the DSRSD Export Pipeline and the Abandoned DSRSD Pipeline, and/or LAVWMA establishing operational parameters and sampling requirements. The agreements and the RO concentrate discharge parameters would be in compliance with the applicable permit/s.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 negotiates agreements with appropriate parties.	1. Zone 7 includes agreement in administrative record	1. Zone 7	1. Prior to Construction Bid Advertisement

Measure WQ-2: Zone 7 shall require contractors to implement BMPs for construction activities as specified by the California Storm Water Best Management Practices Handbook (Stormwater Quality Task Force, 1993) and/or the Manual of Standards for Erosion and Sediment Control Measures (ABAG, 1995). The BMPs include measures guiding the management and operation of construction sites to control and minimize the potential contribution of pollutants to storm runoff from these areas. Erosion and sedimentation control practices include installation of silt fencing, straw wattle, soils stabilization, revegetation, and runoff control (e.g., detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sand bag dikes) to limit increases in sediment in stormwater runoff and avoid chemical spills by implementing **Measures HM-1** through **HM-4**.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 shall incorporate BMPs in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior construction.
2. Contractor shall implement the BMPs.	2. Zone 7 signs-off that measures have been implemented.	2. Zone 7	2. During construction

3.8 Noise

Measure N-1: Zone 7 shall design and construct the proposed facility such that operational noise does not exceed 60 Ldn at the nearest property line.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes noise requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

Measure N-2: In general, construction work shall be conducted during daytime hours (8 a.m. to 5 p.m.). All onsite construction equipment with internal combustion engines shall be equipped with adequate mufflers.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes work hour limitations in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures.	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

3.9 Transportation/Traffic

Measure T-1: Zone 7 shall require its contractor to submit Traffic Control Plans for ingress and egress to the project site during construction, and for any work occurring outside of the fenceline that could affect traffic on Stoneridge Drive. At a minimum, construction signage shall be posted at the project site warning the public of construction work and to exercise caution. When necessary, to provide for equipment and deliveries, flagmen shall be used for temporary truck access. In the event temporary lane closure is required, contractor shall submit the Traffic Control Plan to the City of Pleasanton for review and comments.

Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
1. Zone 7 includes Traffic Control Plan and signage requirements in construction specifications.	1. Zone 7 reviews construction specifications.	1. Zone 7	1. Prior to construction
2. Contractor implements measures, including Pleasanton submittal for lane closure	2. Sign-off by Zone 7 that measures are being implemented.	2. Zone 7	2. During construction

SECTION 4

Report Preparers and References

4.1 Report Preparers

This report was prepared by Environmental Science Associates (ESA), under the direction of Jarnail Chahal, Zone 7 Water Agency. ESA staff involved include:

- Jim O'Toole, Project Manager
- Asavari Devadiga, Senior Associate, Deputy Project Manager
- Vick Germany, AICP, Technical Associate
- Suet Chau, Senior Associate

In addition, William Self Associates provided technical assistance with Cultural Resources.

Following is a list of the supporting documents for the MND report. The report is available for review during regular business hours at the Zone 7 Administrative office.

4.2 References

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ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO 07-2917

INTRODUCED BY DIRECTOR GRECI
SECONDED BY DIRECTOR QUIGLEY

RESOLUTION ADOPTING INITIAL STUDY / MITIGATED NEGATIVE
DECLARATION AND MITIGATION MONITORING AND REPORTING
PROGRAM FOR THE MOCHO GROUNDWATER DEMINERALIZATION
PLANT PROJECT AND APPROVING THE PROJECT

WHEREAS, Zone 7 of Alameda County Flood Control and Water Conservation District (Zone 7), as CEQA Lead Agency, has prepared and circulated a Draft Initial Study / Mitigated Negative Declaration (IS/MND) for a minimum 30-day public review period extending between February 27, 2006 and March 29, 2006; and

WHEREAS, Zone 7 received written public comments, and has responded to those comments in the Response to Comment Document. The Response to Comments Document, in combination with the Draft IS/MND, constitutes the Final IS/MND; and

WHEREAS, The IS/MND has been prepared in accordance with the California Environmental Quality Act, and it has been determined that said project would not have a significant adverse impact on the environment after implementation of mitigation measures;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District finds that said project with mitigation incorporated would not have a significant adverse impact on the environment; and

BE IT FURTHER RESOLVED that this Board does hereby adopt said IS/MND together with comments received and their corresponding responses; and

BE IT FURTHER RESOLVED that this Board does hereby approve the Mocho Groundwater Demineralization Plant Project selecting "Option 3" for RO concentrate disposal and adopt the Mitigation Monitoring and Reporting Program; and

BE IT FURTHER RESOLVED that by approving the project, this Board authorizes staff to complete the permitting and construction of the Mocho Groundwater Demineralization Plant while implementing the Mitigation Monitoring and Reporting Program.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS GRECI, KALTHOFF, KOHNEN, PALMER, QUIGLEY, STEVENS

NOES: NONE

ABSENT: DIRECTOR CONCANNON

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution
Adopted by the Board of Directors of Zone 7 of Alameda
County Flood Control and Water Conservation District on
August 16, 2006

By W. R. Allen
President, Board of Directors