DERWA TANK 1 PROJECT

Draft Initial Study and
Draft Mitigated Negative Declaration

May 24, 2002

Prepared for:

Dublin San Ramon Services District –
East Bay Municipal Utility District
Recycled Water Authority (DERWA)

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990067

Notice of Intent to Adopt a Mitigated Negative Declaration
For the Proposed DERWA Tank 1 Project

The Dublin San Ramon Services District • East Bay Municipal Utility District Recycled Water Authority (DERWA) proposes to adopt a Mitigated Negative Declaration (MND) for the DERWA Tank 1 Project. The project includes constructing a new reservoir tank (Tank 1) with a capacity of four million gallons; and installing 1.3 miles of new pipelines to connect the reservoir tank to DERWA's future transmission mains. The DERWA Tank 1 project is part of the San Ramon Valley Recycled Water Program (SRVRWP), which will supply recycled water to portions of the Dublin San Ramon Services District (DSRSD) and East Bay Municipal Utility District (EBMUD) service areas in the San Ramon Valley. The DERWA Board of Directors approved and certified a Program Environmental Impact Report (PEIR) on the SRVRWP in December 1996. The DERWA Tank 1 project was evaluated at a program-level of detail in that EIR. Consistent with Section 15152 of the *California Environmental Quality Act* (CEQA) *Guidelines*, the draft Mitigated Negative Declaration and Initial Study for the Proposed DERWA Tank 1 Project tiers off of the Program EIR.[1]

DERWA has prepared a draft MND and Initial Study in accordance with CEQA requirements. The draft MND and Initial Study describe the proposed Project, analyze whether any potential significant environmental impacts would result from the Project, and describe mitigation measures that would avoid or lessen any such potential impacts. DERWA elected to prepare an MND because the proposed Project does not meet requirements for preparing a subsequent EIR.

LOCATION: The proposed DERWA Tank 1 site is located in unincorporated Contra Costa County, north and east of the limits of the City of San Ramon, approximately one-half mile east of Alcosta Boulevard at the end of a dirt/gravel access road. Refer to the figure on the back of this notice. The project site is on property owned by EBMUD. EBMUD's Amador Distribution Reservoir is located approximately 140 feet northeast of the proposed Tank 1 site.

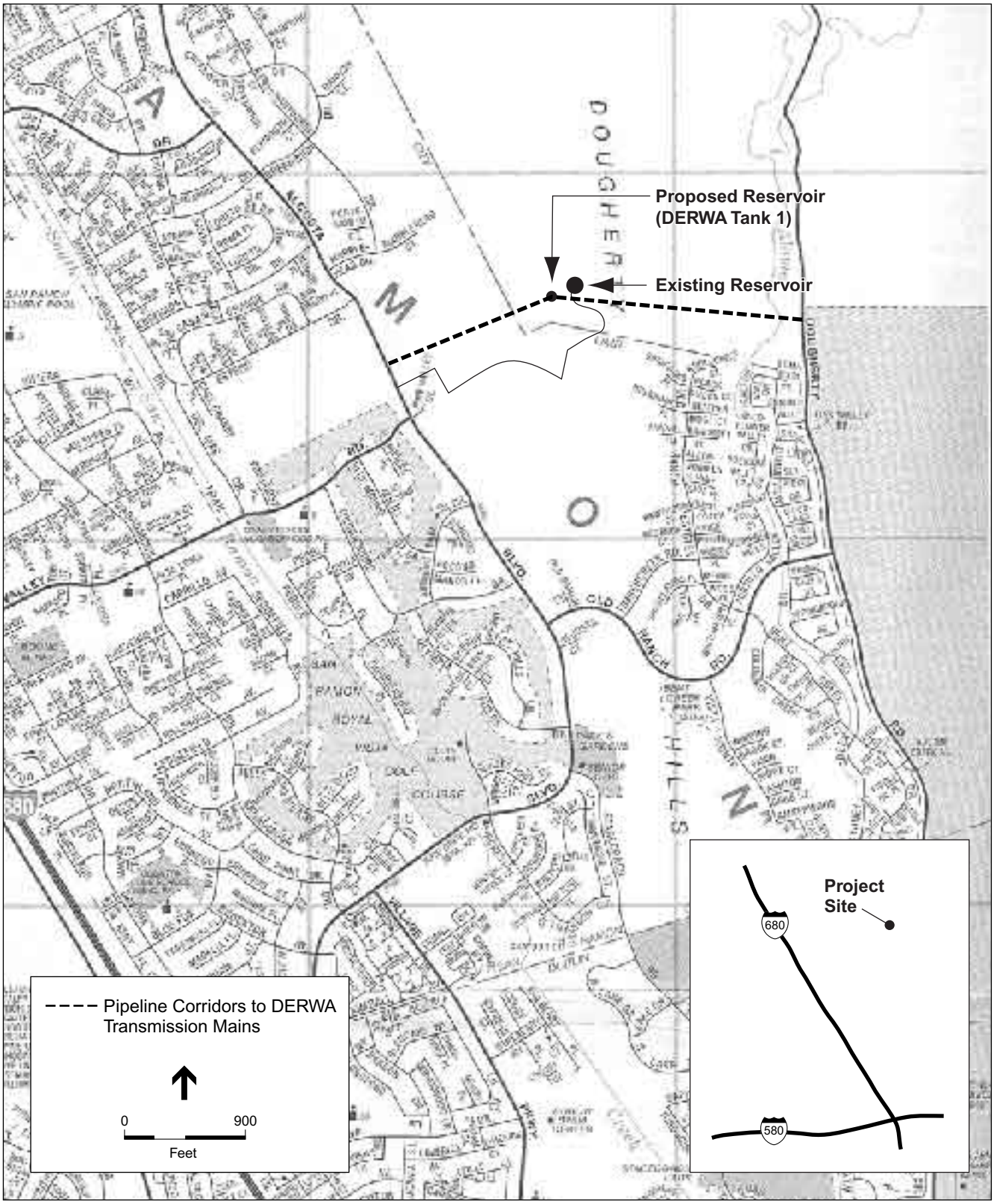
PUBLIC WORKSHOPS: In order to receive comments on this draft MND, public workshops will be conducted from 7:00 to 8:30 PM on Monday, June 10, at the San Ramon Senior Center, 9300 Alcosta Boulevard, San Ramon, and on Wednesday June 12, from Noon to 1:30 PM at the San Ramon Community Center, 12501 Alcosta Boulevard, San Ramon. You are invited to attend these meetings; copies of the MND will be available at the meetings.

DEADLINE: DERWA will be accepting comments on the Mitigated Negative Declaration from **May 24 through June 24, 2002**. Written comments may be sent to the attention of Linda Hu, DERWA, 7051 Dublin Boulevard, Dublin, CA 94568.

The DERWA Board of Directors anticipates considering approval of the MND at its meeting on August 26, 2002. The MND and all associated documents are available for public review during regular business hours at the DERWA Administrative Office, located at 7051 Dublin Boulevard, Dublin. Additionally, the Mitigated Negative Declaration is available for review on line through the DSRSD website (www.dsrsd.com) or EBMUD website (www.ebmud.com), or at the following locations:

Alameda County Library 7606 Amador Valley Blvd., Dublin	Contra Costa County Library 825 Hartz Way, Danville
Contra Costa County Library 100 Montgomery, San Ramon	EBMUD Office of Recycling 375 Eleventh Street, Oakland

[1] "Tiering" refers to using the analysis of general matters contained in a broader EIR with subsequent EIRs or Negative Declarations on narrower projects, incorporating by reference the general discussions from the broader EIR and concentrating the later environmental document solely on the issues specific to the subsequent project.



SOURCE: Environmental Science Associates

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PROJECT DESCRIPTION

1.1 INTRODUCTION AND OVERVIEW

DERWA (DSRSD • EBMUD Recycled Water Authority) is a Joint Powers Authority formed in 1995 between the Dublin San Ramon Services District (DSRSD) and the East Bay Municipal Utility District (EBMUD). The San Ramon Valley Recycled Water Program (SRVRWP) will supply recycled water to portions of the DSRSD and EBMUD service areas in the San Ramon and Dougherty valleys. The DERWA Board of Directors approved and certified a Program Environmental Impact Report on the SRVRWP in December 1996. The approved project is based on serving up to 8,210 acre-feet per year (AFY) of recycled water to urban retail water customers of EBMUD and DSRSD that are either developed or are approved for development[1].

DERWA will provide recycled water through SRVRWP transmission facilities to EBMUD and DSRSD for distribution to customers that can use recycled water for irrigation. EBMUD supplies retail water service in the northern part of the area. DSRSD provides retail water service in the southern part of the area. The recycled water service area boundaries within the developing unincorporated areas have not yet been determined; it is likely that they will follow potable water service boundaries. This assumption has been made based on land use planning documents that have been approved or are in progress.

The project evaluated in this draft Initial Study/Mitigated Negative Declaration (IS/MND) will serve Pressure Zone 1[2] of the DERWA system. The complete DERWA system will have three other pressure zones that will extend the service area to the north and northeast from Tank 1, with an ultimate annual average capacity of approximately 5.7 million gallons per day. The DERWA Tank 1 project specifically consists of constructing a new reservoir tank (Tank 1) with a capacity of approximately 4 million gallons and installing 1.3 miles of pipeline to connect the reservoir tank to DERWA's future transmission mains.

This IS/MND was prepared in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended) and the CEQA Guidelines. The SRVRWP EIR evaluated the DERWA Tank 1 project in a general, program-level manner. This IS/MND tiers off of that EIR and incorporates by reference specific analyses as indicated in the attached Initial Study.[3]

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1 An acre-foot is equal to 325,851 gallons.

2 A pressure zone is an area within a specified elevation range (e.g., 250-450 feet) where storage and distribution facilities are designed to deliver water at a pressure range suitable for customer use.

3 "Tiering" refers to using the analysis of general matters contained in a broader EIR with subsequent EIRs or Negative Declarations on narrower projects, incorporating by reference the general discussions from the broader EIR and concentrating the later environmental document solely on the issues specific to the subsequent project.

1.2 PROJECT OBJECTIVES

The DERWA Tank 1 project would further the objectives of the SRVRWP by providing distribution storage capacity for Pressure Zone 1. The primary objective of the SRVRWP is to maximize the amount of recycled water delivered in the study area to offset irrigation demand for drinking water, while recovering costs. Numerous existing parks, athletic fields, roadway medians, golf courses, and similarly vegetated areas within the study area are currently irrigated with potable water. Planned parks, commercial areas, athletic fields, and golf courses in the study area also will require irrigation. These water users will be the primary customers for recycled water.

The DERWA SRVRWP furthers the objectives of the two participating Districts with regard to water recycling. In 1992, DSRSD adopted Water Recycling Policies (Resolution No. 42092) that are intended to:

- Promote, produce, sell, and deliver recycled water to retail and wholesale customers;
- Manage the SRVRWP on an equitable and self-supporting basis;
- Work with others to develop ordinances and guidelines to encourage the use of recycled water;
- Develop local regulations and standards to ensure the safe and beneficial use of recycled water; and
- Conduct public information and customer service programs to ensure that the public has an appropriate understanding of recycled water, including the benefits of using recycled water.

In addition, as part of its Urban Water Management Plan adopted in February 2001, DSRSD has expressed its commitment to developing recycled water supplies, and includes recycled water as a component of its water supply planning. The Urban Water Management Plan contains a chapter on recycled water, which references the SRVRWP and other water recycling efforts DSRSD is pursuing.

In October 1993, EBMUD established water recycling as an important component of its updated Water Supply Management Program (WSMP). The WSMP identified recycled water as a key component in meeting long-range EBMUD water supply needs. The WSMP's water recycling goal is to achieve an additional eight million gallons per day of yield by 2020 by providing recycled water to major irrigators and industrial users in lieu of potable water. The largest projects are anticipated to be located in the San Ramon Valley and the Oakland/Berkeley area.

Both Districts also have signed the statewide Memorandum of Understanding for Urban Water Conservation in California (June 1991), which calls for water and wastewater districts to support water recycling wherever technically and economically reasonable.

1.3 PROJECT DESCRIPTION

The DERWA Tank 1 project would:

- Provide recycled water storage capacity.
- Install new pipelines to connect the reservoir tank to DERWA's pipeline system.

1.3.1 LOCATION

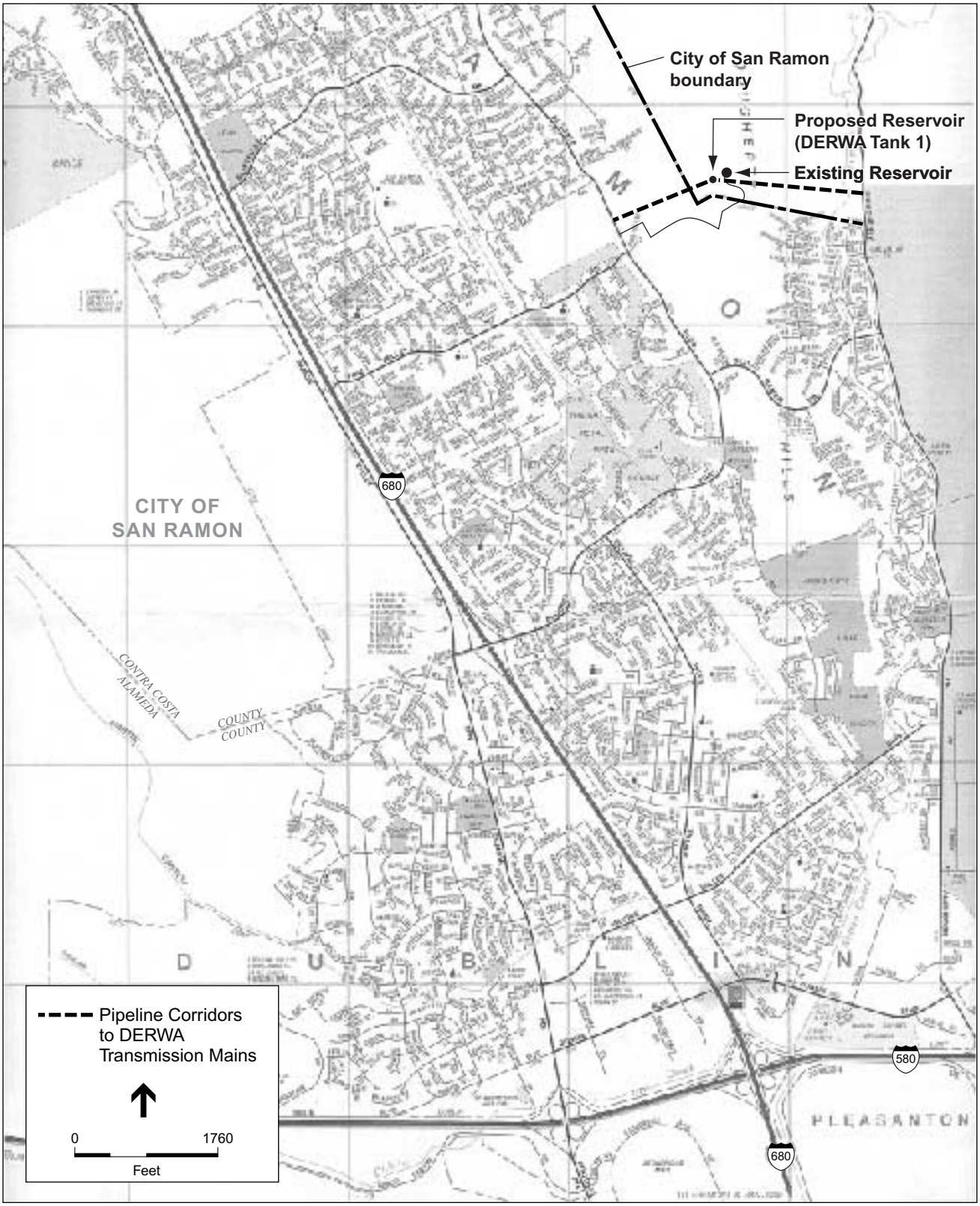
Figure 1 shows the regional location and vicinity of the proposed project. **Figure 2** shows DERWA Pressure Zone 1 and major future recycled water facilities serving the area. The site proposed for the recycled water reservoir is located in unincorporated Contra Costa County, north and east of limits of the City of San Ramon, approximately one-half mile east of Alcosta Boulevard at the end of a dirt/gravel access road. **Figures 1** and **2** indicate the sites that would be developed under the project: the recycled water reservoir site, and corridors for two new pipelines to connect the reservoir tank to DERWA's recycled water pipeline system. The project components are described in detail below.

1.3.2 TANK 1

The proposed recycled water reservoir would be located on property owned by EBMUD, located in the Dougherty Hills open space area east of Interstate 680 (I-680), as shown in **Figure 1**. EBMUD's Amador Distribution Reservoir (9.7 million gallons), which provides potable water to the Amador Pressure Zone, occupies part of the site. DERWA Tank 1 would be located on the eastern slope of an east-southeast trending ridge. The project site is surrounded by undeveloped rangeland and is designated in the Land Use Element of the Contra Costa County General Plan as Open Space. The new reservoir would be approximately 140 feet southwest of the existing Amador Reservoir (see **Figure 3**). Between the proposed and existing reservoirs is a Pacific Gas & Electric (PG&E) easement, approximately 120 feet in width. Also running east-west just north of the proposed reservoir is a 6.5-foot diameter tunnel encasing a 24-inch EBMUD potable water pipeline.

Nearby existing land uses include the adjacent ridgeline and a subdivision approximately 1,000 feet to the southeast. A temporary construction easement approximately 50 feet wide, totaling about one acre, will be necessary during construction on the west side of the EBMUD property.

Figures 3 and **4** show the plan view and cross sections of the reservoir tank. The proposed reservoir would be a cylindrical concrete or steel tank, 150 feet in diameter and 37.5 feet in height, and would be painted to blend with the color of the surrounding hillsides during summer and fall. The bottom elevation of the tank would be 600 feet, matching the Amador Reservoir. The tank would be partially placed on imported engineered structural fill (totaling approximately 3,800 cubic yards) supported by a drilled pier foundation, and protected by a 12-foot concrete retaining wall on the uphill face in a manner similar to the 20-foot retaining wall at the existing Amador tank. All excavated materials would be used to construct a berm around the reservoir.



SOURCE: Environmental Science Associates

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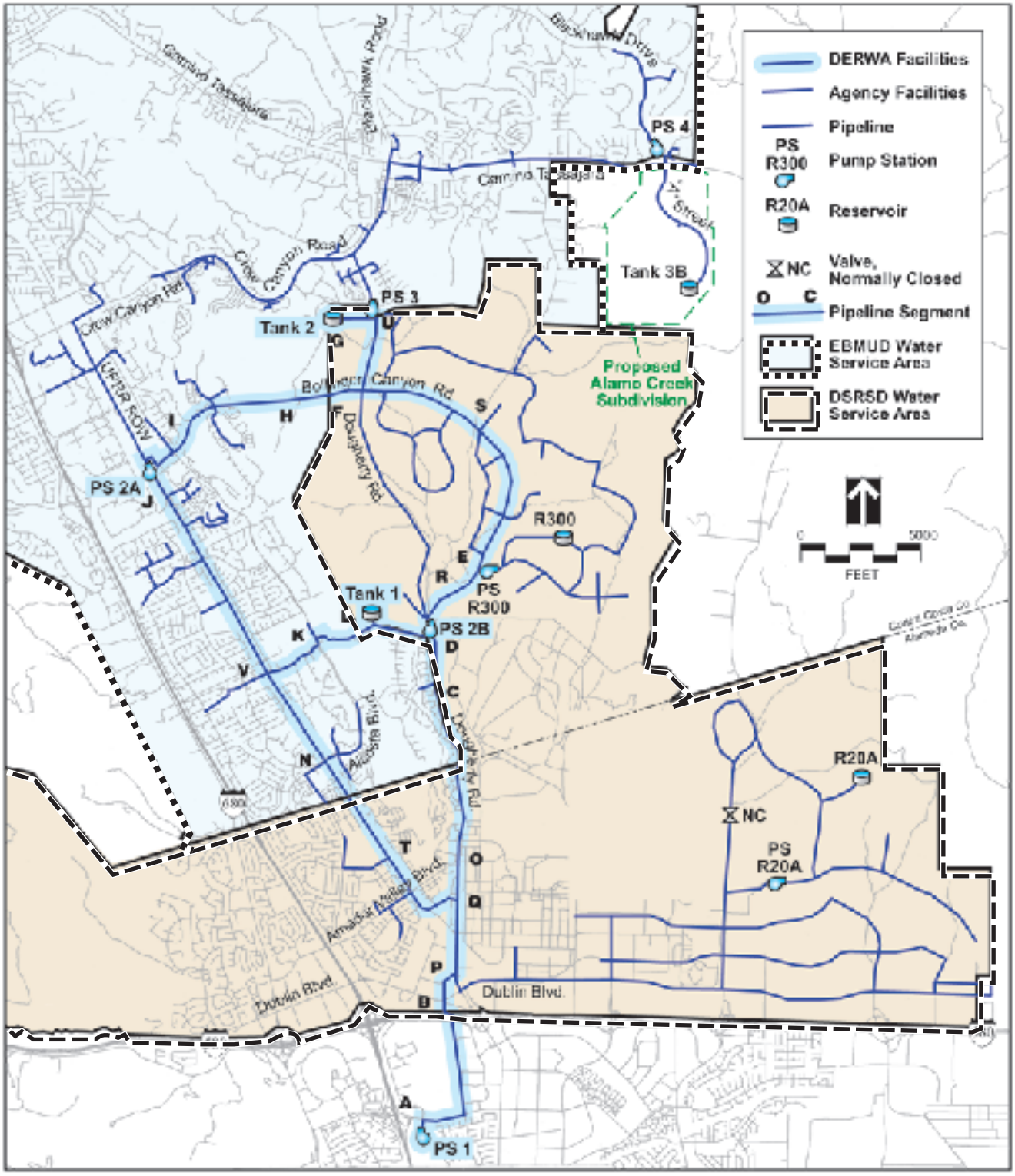
Figure 1
Study Area/
Regional Location Map



SOURCE: Camp, Dresser & McKee

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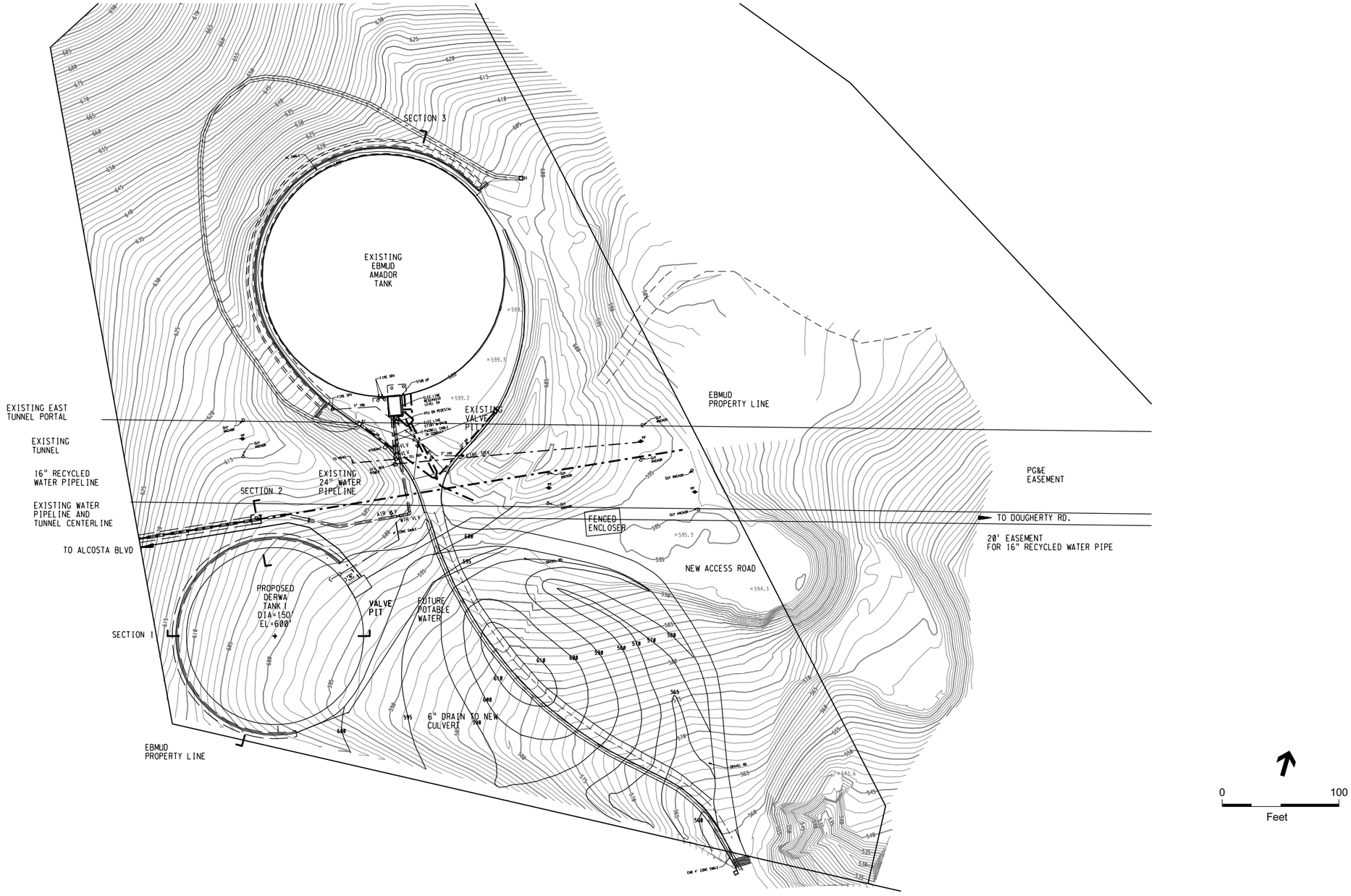
Figure 2
DERWA Approved Customer Service Area and Facilities



SOURCE: Camp Dresser & McKee

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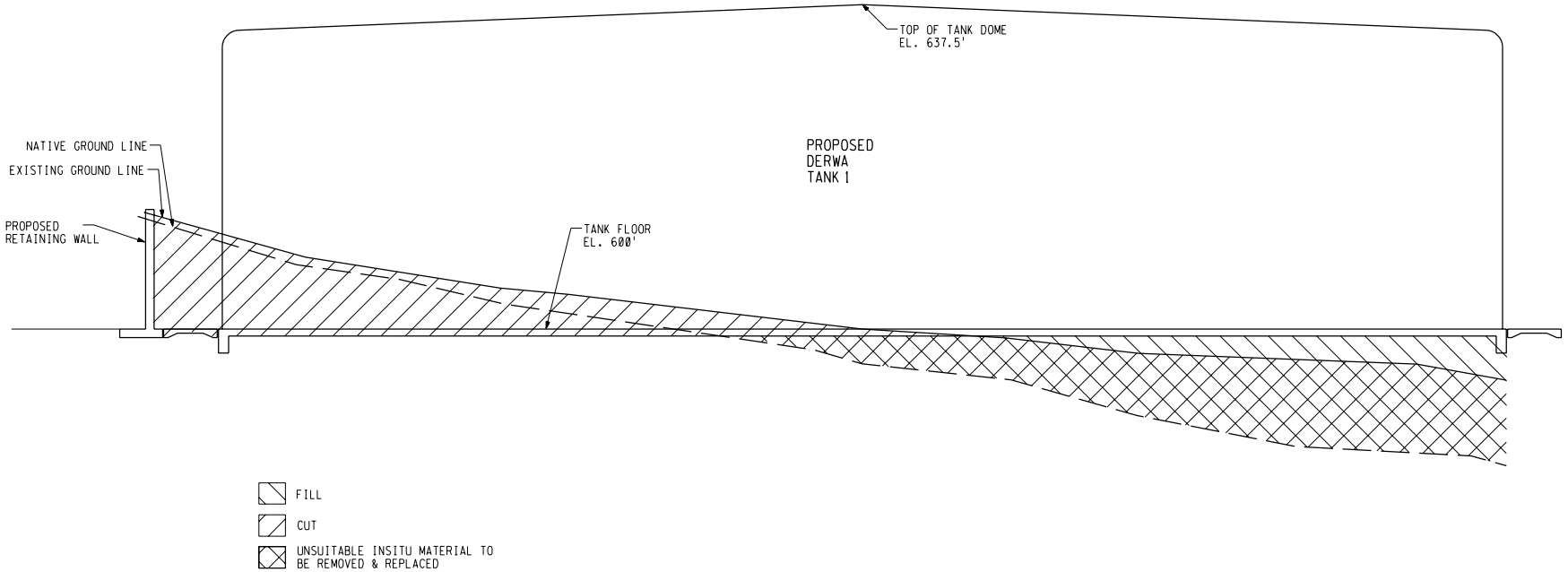
Figure 3

Plan View of Proposed Facilities



SOURCE: Camp Dresser & McKee

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Figure 4
Cross Section of
Proposed Reservoir

1.3.3 PIPELINES

Figure 3 indicates the proposed pipeline alignments. The project proposes to install two pipelines to connect the storage reservoir to DERWA's recycled water transmission mains, to be installed in the future in Dougherty Road and Alcosta Boulevard. A total of 1.3 miles (6,800 feet) of pipeline would be installed. A pipeline up to 18 inches in diameter, aligned along the southern edge of the existing PG&E power line easement that traverses the EBMUD property, would connect the tank to a recycled water pipeline in Dougherty Road to the east. DERWA is proposing to obtain a 20-foot-wide permanent easement. A second pipeline (up to 18 inches in diameter) would connect the tank to a recycled water pipeline in Alcosta Boulevard to the west. This pipeline would be placed within EBMUD's easement for the existing tunnel and pipeline delivering water from the Amador Reservoir to nearby customers. Through the ridge west of the tank within the existing EBMUD easement for the tunnel (shown in **Figure 3**), the pipeline would be installed using either directional drilling or bore-and-jack construction. On the westerly side of the ridge, the recycled water pipeline would be placed in the existing EBMUD pipeline easement using open-trench construction. A temporary construction easement would be needed during trenching.

A 10-inch, 135-foot long gravity overflow pipe would be provided to protect the tank structure from damage and would be used only on an emergency basis (e.g., in the event that pumps filling the tank continue to run during periods of no demand). The overflow pipe would be connected into the overflow system serving the adjacent Amador potable water tank. The existing Amador overflow-drain line consists of a 16-inch diameter pipeline that discharges into an energy dissipator approximately 400 feet east of the proposed Tank 1 site, within EBMUD property, at the top of a gully that drains into Alamo Creek. The energy dissipator consists of a concrete outlet structure with wing walls, cutoff walls, and sacked concrete riprap for erosion control.

1.3.4 OPERATION AND MAINTENANCE

In normal operations, the tank would fill and drain as necessary depending on demand on the system at the time. The facilities are designed so that the tank would be refilled during the daytime when demand is very low, and essentially would be drained completely at the end of the irrigation demand period, in the very early morning. The system would operate during the six-month irrigation season (April through September), and the tank would contain minimum volumes the remainder of the year. Instrumentation would monitor tank liquid level and a variety of conditions. Signal data would be transmitted to the EBMUD control center in Oakland, and to the DSRSD Wastewater Treatment Plant, through the respective agencies' Supervisory Control and Data Acquisition (SCADA) system. A SCADA system consists of industrial control computers, communication systems, and operator interface computer systems that allow for monitoring and control of facilities from treatment plants and administrative offices remote from the tank.

There would be no water treatment chemicals stored at the site.

1.4 CONSTRUCTION METHODS AND SCHEDULE

The proposed tank would be constructed by conventional methods (refer to **Figure 4** for a typical cut-and-fill section). The tank would be supported on engineered fill. A drilled pier foundation would be required for support and lateral loads. The drilling operation would require heavy drilling equipment. During construction, concrete for the foundations and pads would be delivered to the site by ready-mix trucks; backhoes and bulldozers would be used for earthmoving; a crane would set structural components and equipment; and supply trucks would deliver materials and equipment used in the construction process. Additional equipment likely to be used includes welding machines, air compressors, and various air- and electric-powered hand tools. There would be an estimated 20 workers per day at the project site during construction. The reservoir tank would serve as the construction staging area and has sufficient space for on-site parking.

Pipeline installation would use standard open-cut trenching techniques for the majority of the pipeline improvements, using speed shoring or trench box bracing. Bore and jack construction would be used to cross Alamo Creek for installation of the eastbound recycled water pipeline; bore-and-jack or directional drilling would be used to tunnel the pipeline beneath the ridge west of the tank site. Excavated trench materials would be sidecast within easement areas or approved work areas and reused as appropriate for backfill; excavated materials not suitable for backfill would be routed to the water storage tank for use in construction of an earthen berm. Trench width would be approximately three feet wide, with a depth of up to eight feet. There would typically be active work areas of about five feet on one side of the trench and 10 to 12 feet on the other side for access by trucks and loaders, requiring a 20-foot-wide construction easement. Open-trench pipeline construction would proceed at approximately 150 feet per day. Once filled, the area would be replanted with grasses, or shrubs as needed to match existing conditions. Construction equipment used for open-cut pipeline construction would include backhoes, front-end loaders, dump trucks, flat-bed delivery trucks, crane, compactors, concrete trucks, and paving equipment. Construction equipment used for directional drilling or bore-and-jack construction could include drill rig, horizontal boring machine and hydraulic jacks in addition to standard earthmoving equipment.

1.4.1 SCHEDULE

Final design for the tank and pipeline facilities is scheduled to be complete in Fall 2003. Construction is scheduled to begin in Spring 2004 and conclude in Spring 2005.

1.5 PERMITS REQUIRED

Permits may be required from the following agencies:

- San Francisco Bay Area Air Quality Management District (BAAQMD): Authority to Construct;
- City of San Ramon and Contra Costa County Encroachment Permits for construction in public rights-of-way (Dougherty Road and Alcosta Boulevard);

- US Army Corps of Engineers, Nationwide Permit for pipeline construction across waters of the U.S.;
- California Department of Fish and Game, Streambed Alteration Agreement; and
- Regional Water Quality Control Board, Water Quality Certification.

SECTION 2.0

ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** DERWA Tank 1, Recycled Water Program

2. **Lead Agency Name and Address:** Dublin San Ramon Services District • East Bay Municipal Utility District Recycled Water Authority (DERWA)
   7051 Dublin Boulevard
   Dublin, CA 94568

3. **Contact Person and Phone Number:** Laura Johnson, DERWA Authority Manager

4. **Project Location:** San Ramon, California
   Contra Costa County

5. **Project Sponsor's Name and Address:** See No. 2, Lead Agency, above.

6. **General Plan Designation:** Open Space

7. **Zoning:** Open Space

8. **Description of Project:** DERWA is proposing to construct the Pressure Zone 1 facilities. Proposed facilities consist of a recycled water tank (four million gallons) and two pipelines (totaling 1.3 miles in length) to connect the reservoir to DERWA's future recycled water transmission system.

9. **Surrounding Land Uses and Setting.** Land uses near the project site are open space and utilities, with some areas of residential development to the southeast.

10. **Other public agencies whose approval may be required:**
    - San Francisco Bay Area Air Quality Management District (BAAQMD)
    - City of San Ramon and Contra Costa County (Encroachment Permits)
    - U.S. Army Corps of Engineers
    - California Department of Fish and Game
    - Regional Water Quality Control Board

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked 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.

☒ 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.

POTENTIAL ENVIRONMENTAL IMPACTS:

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

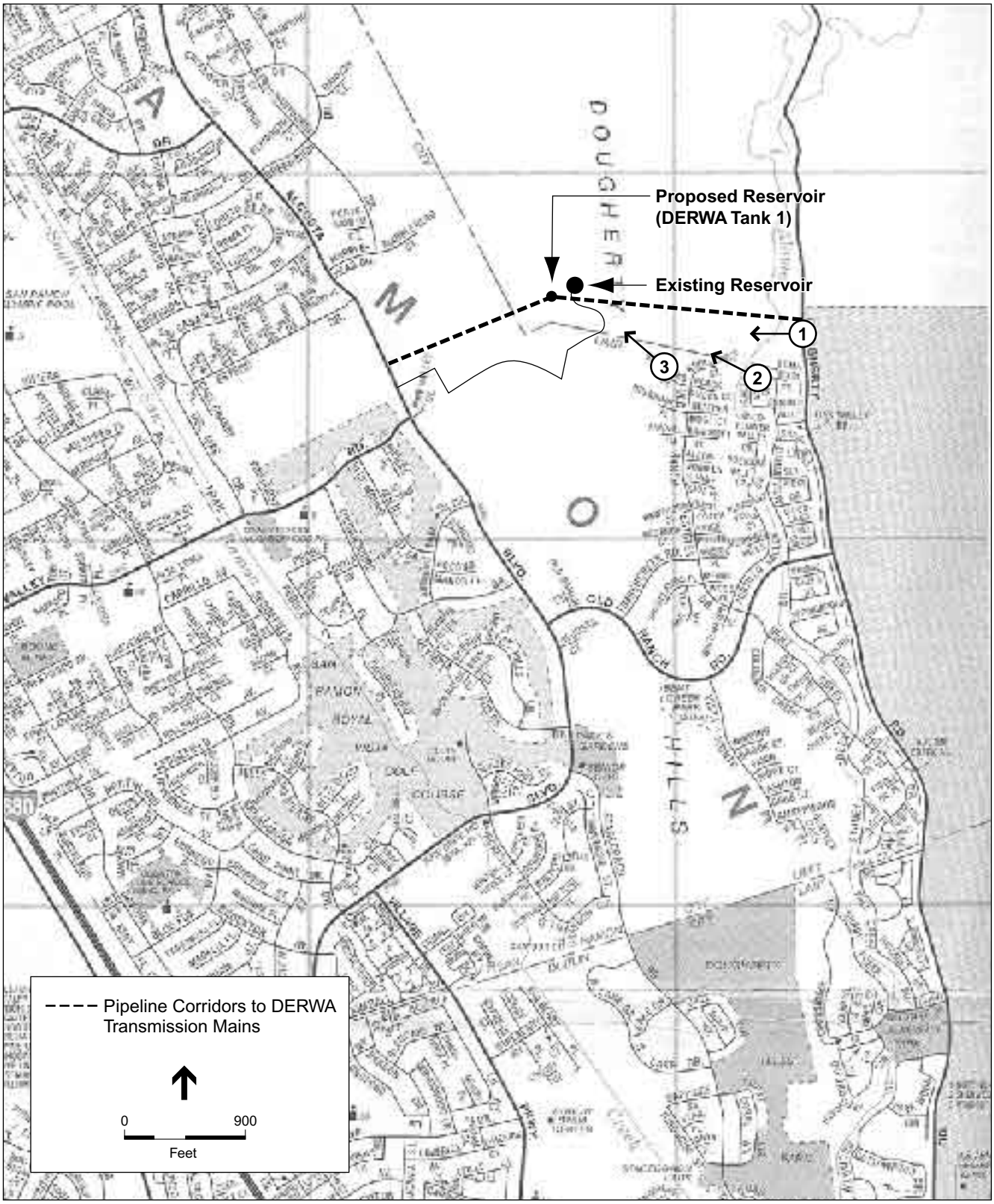
Discussion

a,b,c) **Setting**

The Amador Reservoir site is on the side of a ridge (part of the Dougherty Hills) that forms the boundary between the San Ramon and Dougherty Valleys. The visual characteristics of the site vicinity are rolling, grass-covered hillsides on the outskirts of urbanized areas. The dominant visual feature at the project site is the existing Amador Reservoir which, together with the PG&E power lines that traverse the site and a cellular telephone tower, give the site an industrial appearance. No screening vegetation is available to help integrate the existing facilities or the proposed reservoir with the surrounding area.

The reservoir site is visible from publicly accessible viewpoints to the east and southeast; intervening topography screens views of the site from the west and south, while the area to the north—higher elevations on the ridge along which the tank would be constructed—lacks public access at present, although a trail along this ridge is being contemplated under a trails master plan being developed for the Dougherty Valley Specific Plan Project (refer to Section XIV, Recreation). **Figure 5** indicates the location of photographs taken from points east and southeast of the proposed tank site. **Figures 6, 7 and 8** depict current views from these locations and simulations of future conditions with the project.

The project area is in unincorporated Contra Costa County but is in the planning area of the City of San Ramon and likely will be annexed to the City as the Dougherty Valley Specific Plan area is annexed. According to the Contra Costa County Zoning Ordinance, public utility facilities are permitted on open space designated land. The project area is part of a City-designated Resource Conservation Overlay District.



SOURCE: Environmental Science Associates

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Figure 5
Photograph Locations

Viewpoint 1: Reservoir Site from Dougherty Road looking west.

Viewpoint 1: Visual Simulation of Proposed DERWA Tank 1 from Dougherty Road looking west.

Note: EBMUD is in the process of painting the Amador Tank as part of periodic maintenance activities (the tank is being repainted EBMUD's standard olive green color).

SOURCE: Camp Dresser & McKee Inc.

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Figure 6

Existing View and Corresponding Simulation

Viewpoint 2: Reservoir Site from Summit View Drive at Peaceful Valley Drive looking northwest.

Viewpoint 2: Visual Simulation of Proposed DERWA Tank 1 from Summit View Drive at Peaceful Valley Drive looking northwest.

Note: EBMUD is in the process of painting the Amador Tank as part of periodic maintenance activities (the tank is being repainted EBMUD's standard olive green color).

SOURCE: Camp Dresser & McKee Inc.

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Figure 7

Existing View and Corresponding Simulation

Viewpoint 3: Reservoir Site from property line at 109 Shireoaks Place looking northwest.

Viewpoint 3: Visual simulation of Proposed DERWA Tank 1 from property line at 109 Shireoaks Place looking northwest.

Note: EBMUD is in the process of painting the Amador Tank as part of periodic maintenance activities (the tank is being repainted EBMUD's standard olive green color).

SOURCE: Camp Dresser & McKee Inc.

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Figure 8

Existing View and Corresponding Simulation

Impacts

Temporary Construction Impacts

Construction activities (excavation, grading, machinery and vehicle storage) would have a temporary, adverse effect on the visual quality at the reservoir site and along pipeline routes during construction. Pipeline construction also would result in temporary visual impacts (e.g., soil stockpiling and open trenches). However, due to the limited duration of construction activities, potential visual impacts due to construction activities are considered less than significant. DERWA would replant areas disturbed by earthwork, reducing the potential for short-term construction impacts to become long-term visual impacts (see **Measure A-1**).

Proposed Tank

The proposed DERWA Tank 1 would be similar in appearance to, but smaller than, the existing Amador Reservoir. Tank 1 would be an aboveground cylindrical concrete or steel tank, approximately 37.5 feet tall with an estimated diameter of 150 feet. It would have floor and high water elevations of 600 and 630 feet above mean sea level (msl), respectively. The proposed reservoir would be southwest of the existing Amador (potable water) Reservoir, which has a floor elevation of 600 feet msl, a diameter of 204 feet and a height of 49 feet.

As shown in **Figure 6** (existing conditions and simulation of future conditions with the project), the project site is visible from parts of Dougherty Road, a County-designated Scenic Route approximately 0.4 mile to the east of the reservoir site.[1] The existing and proposed reservoir tanks would be visible in dynamic (short-duration) views from passing motorists and bicyclists traveling northbound (and, to a lesser extent, southbound) on Dougherty Road. The project would introduce another, somewhat smaller tank into westward views of the ridge from Dougherty Road. The proposed tank also would be visible from certain locations within the subdivision to the southeast of the site (see **Figure 5**). Houses and landscaping and/or topography would obstruct views of the site from most streets and residences in the neighborhood. The proposed tank would be most visible from motorists and pedestrians traveling west on Peaceful Valley Drive near Summit Drive (**Figure 7**) and from some residences abutting the open space to the north (i.e., houses on the north side of Shireoaks Place, Knollcrest Court, and Peaceful Valley Drive). As shown in **Figure 7**, the DERWA Tank 1, although closer to the neighborhood, would be less visually obtrusive than the existing Amador Reservoir because it would be smaller and partially screened by houses. **Figure 8** demonstrates that the proposed tank also would be clearly visible from residences along the north side of Shireoaks Place, but it would appear smaller than the existing tank. Nonetheless, the proposed project would exacerbate the industrial appearance of the hillside by placing a second tank at the site.

As part of Phase 4 of the Dougherty Valley Specific Plan project, residences and a city park would be built along the realigned Dougherty Road directly east of the tank site. Views of the proposed tank would be visible from these residences and the park. Phase 4 of the Dougherty Valley Specific Plan project is not expected to be built for another 10 to 12 years (Simonson, 2001).

[1] Dougherty Road is currently being realigned; the photograph was taken just west of the existing road.

As stated above, the project site is part of a City-designated Resource Conservation Overlay District. The intent of the Resource Conservation Overlay District (Ordinance 129) is to ensure that any future development does not adversely affect open space and scenic resource areas within the City and its Sphere of Influence. The ordinance sets forth grading and development standards that address the design and layout of structures on hillsides and ridgelines. Resource Conservation Overlay District provisions include the prohibition of structures: (1) on land with an existing slope in excess of 20 percent; (2) on the crests of major ridges; and (3) within 100 feet, measured vertically, of the centerline of a major ridge or 50 feet, measured vertically, of a minor ridge.

The proposed site of the DERWA Tank 1 has a 17 percent slope and is not on the crest of a major ridge. The ridgeline along which the Amador Reservoir site occurs is a County- and City-designated scenic ridgeline. The City of San Ramon General Plan identifies the project site as being within a Major Ridgeline Protection Zone, within which development is not permitted. However, the DERWA Tank 1 would be constructed approximately 140 feet southwest of the existing Amador Reservoir (constructed in 1968) and would be similar in appearance to, but smaller than, the existing tank. The existing elevation of the siting area for the proposed tank ranges from approximately 593 to 612 feet msl. The proposed tank site would be graded to match the base elevation of the Amador Reservoir (600 feet msl) and would be approximately 10 feet shorter in height. The highest point of the ridgeline (about two-thirds of a mile north-northwest of the tank site) is 870 feet msl; near the proposed tank site, the ridgeline elevation is 720 feet msl. The proposed tank would not break the ridgeline to the west; the tank would not be silhouetted against the sky.

The DERWA Tank 1 project would further the objectives of the San Ramon Valley Recycled Water Program (SRVRWP) by providing distribution storage capacity for Pressure Zone 1. The primary objective of the SRVRWP is to maximize the amount of recycled water delivered in the study area to offset potable irrigation water demand, while recovering costs. In accordance with SRVRWP design and operating requirements, the reservoir tank must have floor and high water elevations of 600 and 630 feet, respectively, in order to deliver recycled water at a pressure suitable for customer use. These elevation constraints limit potential locations where the reservoir can be sited, and any alternative sites also would be within the City of San Ramon planning area, part of a Resource Conservation Overlay District and potentially inconsistent with policies regarding construction of structures near ridgelines. Since the proposed tank must be constructed on a hillside to meet minimum elevation requirements, the effects on views in the project area, which are characterized by rolling hills with open grassland, are unavoidable. However, the proposed project seeks to comply with the intent of the Resource Conservation Overlay District Ordinance by siting the proposed tank on a hillside near the existing Amador Reservoir. Amador Reservoir is an existing industrial feature prominent in views from surrounding designated scenic roads and residential areas, as shown in the simulations of the project that are presented in **Figures 6, 7, and 8**. Siting the tank near the Amador Reservoir would add an industrial structure to a viewshed where a water storage tank already exists, and would avoid development of other pristine hillsides in the area that do not currently contain industrial features.

In summary, the proposed tank would have a significant impact on the visual character of, and views from, the surrounding area. The scenic quality of the project site itself is considered marginal, due to existing facilities, including the Amador Reservoir, overhead PG&E lines, and

cellular telephone tower; the new reservoir would incrementally worsen the appearance of the site. Implementation of **Measure A-2**, which requires construction of an earthen berm and use of earth-tone color paint to facilitate blending with the natural environment, would reduce visual impacts to less-than-significant levels. Construction of a berm adjacent to, and east of, the proposed tank would soften the appearance of the tank by partially integrating it into the surrounding landscape (see **Figures 6, 7 and 8**). The berm also would reduce the visual impact of the tank in views from residences adjacent to the open-space area to the north. The proposed tank would be painted an earth tone color to minimize visual contrast and blend with the surrounding landscape.

d) The project proposes to install a low-impact, motion-sensor light at the proposed tank for nighttime use during project operation. This lighting would be a permanent feature that would be used in the event that maintenance workers need to access the tank during nighttime hours. This light should be directed away from sensitive uses (see **Measure A-3**). In addition, no nighttime construction activities would occur. Therefore, the project would not create a new source of light or glare that would adversely affect day or nighttime views in the area.

Mitigation Measures

Measure A-1: DERWA shall restore and revegetate areas disturbed during project construction. As stated below in **Measure B-1**, the project site, including the proposed earthen berm, shall be revegetated with appropriate native riparian wetland and upland plant species.

Measure A-2: DERWA shall provide visual mitigation for the proposed reservoir, including construction of an earthen berm adjacent to, and east of, the reservoir, as depicted in **Figures 6 and 7** of this Initial Study, and use of low-glare, earth-tone paint. DERWA will select a paint color that approximates the golden color of grasses on surrounding hillsides.

Measure A-3: DERWA shall focus and direct night lighting away from sensitive uses such as residential areas.

Implementation of these measures would reduce potential impacts to aesthetics to less-than-significant levels.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
II. AGRICULTURE RESOURCES -- 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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
II. AGRICULTURE RESOURCES (cont.) -- Would the project:				
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) Implementation of the proposed project would not affect land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

b,c) The site of the proposed reservoir is designated as Open Space by the Contra Costa County Zoning Ordinance. Existing uses at the proposed reservoir site are open space and public utility. The reservoir would convert approximately 0.5 acre of rangeland. The site is under Williamson Act contract. According to the Contra Costa County Zoning Ordinance, public utility facilities are permitted on open space designated land.

Mitigation Measures

None required or recommended.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
III. AIR QUALITY -- 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)?	☐	☐	☒	☐

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
III. AIR QUALITY (cont.) -- Would the project:				
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion

a,b,c,d)

The project site is located within the Diablo and San Ramon Valley, a subregion within the nine-county San Francisco Bay Area Air Basin (Air Basin). The entire Air Basin is designated as "nonattainment" with respect to the state and national standards for ozone, and with respect to the state PM-10 standard (California Air Resources Board [CARB], 2000). Air quality plans have been adopted that outline measures to achieve attainment status for these pollutants.

The Air Basin falls under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), the regional agency empowered to regulate air pollutant emissions from stationary sources in the Bay Area. BAAQMD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and review activities.

Air pollutant emissions that would result from the implementation of the proposed project would be limited to construction phase emissions. Long-term emissions would be associated with worker vehicle trips to and from the site, which would be infrequent in nature and limited to maintenance of project facilities; emissions related to these trips would be negligible.

Project construction would generate fugitive dust[2] (including particulate matter less than 10 microns in size or PM-10) and other criteria air pollutants, primarily through excavation activities, construction equipment exhaust and haul truck trips, and related construction worker commute trips. The nearest sensitive receptors to the tank site are residences approximately 1,000 feet southeast of the project site. These residences could be potentially affected by construction dust associated with tank installation. Pipeline installation would entail primarily open trench construction that would connect the proposed tank to recycled water transmission mains in Alcosta Boulevard to the west and Dougherty Road to the east. Residences would be located as close as 100 feet from pipeline construction.

Construction of the project is anticipated to commence in Spring 2004, with overall construction occurring over one year. During this period, project construction could generate substantial amounts of fugitive dust. Fugitive dust emissions would vary from day to day depending upon the level and type of construction activity, silt content of the excavated soil, and the prevailing weather.

2 "Fugitive" emissions generally refer to those emissions that are released to the atmosphere by some means other than through a stack or tailpipe.

A large portion of the total construction dust emissions would result from equipment and motor vehicle traffic over the project site. Other sources of fugitive dust during construction would include excavation, earth movement, grading, and wind erosion from exposed surfaces.

BAAQMD CEQA Guidelines recognize that construction equipment emits ozone precursors, but indicate that such emissions are included in the emission inventory that provides the basis for regional air quality plans, and that construction emissions are not expected to impede attainment of ozone standards in the Bay Area (BAAQMD, 1999). Consequently, the BAAQMD recommends that determination of significance with respect to construction impacts be based not on quantification of emissions and comparison to thresholds, but upon inclusion of feasible control measures for PM-10. **Measure AQ-1** provides for the preparation of a dust abatement program to reduce PM-10 generation to a less-than-significant level.

e) BAAQMD Regulation 7 contains limitations and standards for discharges of odorous substances. The proposed project is limited to recycled water storage and pipeline facilities and would not increase the overall volume of sewage treatment and sludge handling. Therefore, no increase in the frequency and/or intensity of wastewater treatment plant-generated off-site odors would be expected. No additional design measures for odor containment and/or control for the existing and proposed new facilities will be required.

Mitigation Measures

The following mitigation measure was included by the DERWA Board as part of conditions of approval for adoption of the SRVRWP Programmatic EIR. (The measure has been modified to match current BAAQMD requirements for dust control.)

Measure AQ-1 (3.13.1): The construction contractor shall implement a dust abatement program, which should include following elements:

- Water all active construction areas at least twice daily, depending on type of operation, and wind exposure;
- Designate a person or persons to oversee the implementation of a comprehensive dust control program and to increase watering, as necessary;
- Construction grading activity should be discontinued in high wind conditions that cause excessive neighborhood dust problems, based on the opinion of the construction inspector;
- Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer) in accordance with Section 23114 of the California Vehicle Code during transit to and from the site;
- Pave, apply water three times daily, or apply non-toxic soil stabilizers (e.g., latex acrylic copolymer) on all unpaved access roads, parking areas, and staging areas at construction sites, and cover inactive storage piles;
- Sweep daily (preferably with water sweepers) all paved access roads, parking areas, and staging areas at construction sites;

- Sweep streets daily (preferably with water sweepers) if visible soil material is carried onto adjacent public streets;
- Hydroseed or apply soil binders to inactive construction areas;
- Enclose, cover, water twice daily or apply soil binders to exposed stockpiles;
- Limit traffic on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Use alternative fueled construction equipment, if possible.
- Minimize idling time (e.g., 10-minute maximum).
- Maintain properly tuned equipment.
- Limit the hours of operation of heavy-duty equipment and/or the amount of equipment used.

Implementation of this mitigation measure would reduce potentially significant air quality impacts to less-than-significant levels.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and 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?	☐	☒	☐	☐

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IV. BIOLOGICAL RESOURCES (cont.) -- Would the project:				
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) The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species of concern identified by federal, state of local agencies. There are no special-status species issues at the tank site. The 1996 EIR correctly indicated that state and federally listed San Joaquin kit fox (*Vupes macrotis macrotis*) were a concern in some parts of the larger project area, and O'Farrell (1983) included the Tank 1 area in his map of the northern distribution of the species. However, Orloff et al. (1986) reported that kit fox tended to use the lower portions of slopes for denning, making the tank area fully suitable only for foraging. Moreover, in 1993 Sproul and Flett reviewed the evidence and concluded that kit fox are not resident west of the base of the Altamont Hills. These two sources support a conclusion that the project would not have a significant effect on San Joaquin kit fox and there is no potential for a "take" of the species under the state or federal Endangered Species Acts.

The pipeline facilities would be constructed across two aquatic features. The easternmost of these, Alamo Creek, is approximately 10 feet across and several feet deep, with a stable margin of riparian vegetation (boxelder, willows, cattails and sedges). It is potential habitat for California red-legged frog (*Rana aurora draytonii*, federally listed as threatened) and western pond turtle (*Clemmys marmorata marmorata*, a state species of special concern). Both species are known to occur in Alamo Creek (California Department of Fish and Game, 2001). Impacts to both species would be mitigated by applying the provisions of the programmatic Biological Opinion for the California red-legged frog (USFWS, 1999; see also **Measure B-1**). Compliance with these provisions would reduce potential impacts to less-than-significant levels.

b) Construction activities would not have a substantial adverse effect on riparian habitat or other sensitive natural communities except as noted in (c) below. The area is within Unit 15 of Critical Habitat designated for the California red-legged frog (U.S. Fish and Wildlife Service, 2001), but

habitat impacts would be temporary and the provisions of **Measure B-1** would reduce these impacts to less-than-significant levels.

c) The pipelines would cross both Alamo Creek and an unnamed drainage to the west of the tank site. Therefore, the project has the potential to affect wetlands and/or other aquatic resources under the jurisdiction of the U.S. Army Corps of Engineers, San Francisco Bay Regional Water Quality Control Board, and California Department of Fish and Game. Potential effects include removal of vegetation and soils and temporary affects to water flow patterns and quality. Impacts would be temporary and the provisions of **Measure B-2** would reduce these potential impacts to less-than-significant levels.

d) The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with any established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. **Measure B-3** addresses the potential for animal entrapment in open pipeline trenches.

e) Generally, the Contra Costa County General Plan and City of San Ramon General Plan contain goals, policies and implementation measures for preserving open space, creek corridors, woodlands, and habitat of threatened or endangered species in terms similar to the CEQA Guidelines criteria in this checklist. In addition, the County and City both have policies or ordinances regarding tree protection. There are no trees on the reservoir site. The only trees along the pipeline routes are near Alamo Creek. Construction of the pipeline is not anticipated to affect any heritage or protected trees as defined in the Contra Costa County Ordinance.

f) The project does not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

All mitigation measures for biological resources included by the DERWA Board of Directors as conditions of project approval (for the San Ramon Valley Recycled Water Project) are incorporated herein by reference (Mitigations 3.9.1 through 3.9.4). The following measures are consistent with those developed for the EIR and provide mitigations specific to this program element.

Measure B-1: A programmatic Biological Opinion for construction impacts to California red-legged frog has been developed by the U.S. Fish and Wildlife Service (USFWS, 1999). A brief summary of the mitigation measures contained in the programmatic B.O. is presented below and considered part of this project:

- The name and credentials of a biologist qualified to act as construction monitor would be submitted to USFWS for approval at least 15 days prior to commencement of work at the Alamo Creek crossing;

- The USFWS-approved biologist shall survey the pipeline crossing construction site two weeks prior to the onset of work activities. If CRLF adults, tadpoles, or eggs are found, the approved biologist shall contact USFWS to determine whether relocating any life stages is appropriate;

- The biologist shall conduct training sessions for all construction personnel before activities begin in areas of potential habitat;

- The biologist shall remain on site until all frog removals, training sessions, and habitat disturbances have been completed. After this time, the contractor or permitee shall designate a person (trained by the approved biologist) to monitor on-site compliance with all impact minimization measures. Both the monitor and the biologist shall have the authority to halt any action that might result in impacts;

- All trash that may attract predators shall be contained and removed daily from the site(s);

- All fueling and maintenance of vehicles and equipment shall occur at least 20 meters (65 feet) from any riparian habitat or water body;

- The biologist shall ensure that the introduction or spread of invasive exotic plant species is avoided to the maximum extent possible, by removing weeds from areas of exposed bare soil within the construction zone where construction occurs in riparian vegetation;

- Project sites shall be revegetated with appropriate native riparian wetland and upland plant species, and a plan describing pre-project conditions, restoration and monitoring success criteria prepared before construction;

- Stream contours shall be returned to their original condition after project completion (where appropriate);

- The number and size of access routes, staging areas, and total area of activity shall be limited to the minimum necessary to achieve the project goal;

- Best management practices identified by the appropriate Regional Water Quality Control Board shall be implemented to control erosion;

- If work sites require dewatering, the intakes shall be screened with a maximum mesh sizes of 5 millimeters;

- The approved biologist shall permanently remove and destroy from within the project area any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible.

Measure B-2: DERWA shall conduct a formal delineation of the project area to determine the extent and nature of wetlands and other aquatic habitats under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB) and California Department of Fish and Game (CDFG). DERWA shall prepare and submit appropriate permit materials and receive appropriate permits prior to issuance of the Notice-To-Proceed for the Contractor. Permits that would likely be necessary to implement the proposed project include an ACOE Section 404 Clean Water Act Nationwide, RWQCB Section 401 Clean Water Act water quality certification or waiver and a CDFG Section 1600 series (of the California Fish and Game Code) Streambed Alteration Agreement. DERWA shall be responsible for implementing all conservation, protection, and mitigation measures required by the resource agencies. These required measures are expected to be similar to those summarized in **Measure B-1**, above.

Measure B-3: To prevent accidental entrapment of animals during construction, all excavated or deep-walled holes or trenches greater than 2-feet deep will be covered at the end of each work day by plywood or similar materials, or provided with escape routes constructed of earth fill or wooden

planks. Before such holes are filled they will be thoroughly inspected for trapped animals. If trapped animals are discovered, they will be allowed to escape before back filling.

Implementation of these measures would reduce the potential for impact to all biological resources to a less-than-significant level.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 paleonotological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion

a) There are no historic structures at the project site.

b,d) The following mitigation was adopted by the DERWA Board of Directors in 1996 for construction of "program facilities" (i.e., DERWA Tank 1) that could affect prehistoric or archaeological sites:

> **Mitigation 3.11.2**--Construction of Program Facilities Could Affect Archaeological Sites
>
> "Site reconnaissance will be performed during design to determine if construction will result in any adverse impact to known archaeological sites. If adverse impact is indicated to any of these sites, the facilities will either be relocated or a suitable research and testing program to evaluate whether the affected archaeological sites are a 'significant' resource, a program to mitigate the adverse effects of project construction on them will be developed. It is possible that Native American skeletal remains will be found during subsurface testing or data recovery phase of the investigation. DERWA will follow all applicable regulations set forth in CEQA and the Public Resources Code."

In accordance with the above mitigation measure, an archaeologist conducted a site visit for reconnaissance purposes on November 30, 2001. No resources were found. Additionally, a record search was conducted at the Northwest Information Center at Sonoma State University, the results of which were received on December 3, 2001. Upon reviewing the record search results from the Northwest Information Center, it was determined that no previously identified cultural resources were present within the vicinity of the current project area. However, while it has been determined

that no previously recorded cultural resources present, there is concern that the project may possibly have an adverse effect on potentially significant buried deposits.

Because a large portion of the surface of the project site has been modified through the addition of fill materials in varying depths throughout, it is recommended that a cultural resource monitor be present during the course of major ground disturbing activities such as grading and excavation, or that construction staff receive training from a qualified archaeologist prior to construction. While it is not anticipated that cultural resources will be encountered during the course of construction, any such resources may be deemed significant, in which case it would be necessary to further evaluate the potential significance of the find.

c) There are no known paleontological resources at the site.

Mitigation Measures

Implementation of the following mitigation measures would reduce the potential for disturbance of cultural resources to a less-than-significant level.

Measure CR-1: DERWA will retain a qualified archaeologist either to monitor excavation at the site to provide training to construction staff, prior to the start of construction, in the recognition of potential artifacts.

Measure CR-2: Should any as yet undiscovered cultural resources, such as structural features, or unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any development activities, the contractor will suspended work and contact DERWA staff. A qualified cultural resource specialist shall be retained and will perform any necessary investigations to determine the significance of the find. DERWA will then implement any mitigation deemed necessary for the recordation and/or protection of the cultural resources. In addition, pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work must be halted and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 (1997), 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-i) Surface fault rupture potential is considered highest on faults that have exhibited displacement within the last 11,000 years. These faults are considered active by the California Geological Survey and in accordance with the Alquist-Priolo Earthquake Fault Zoning Act of 1972. These active faults are assigned Fault Rupture Hazard Zones (FRHZ) at set distances from the active fault trace. The intent of these zones is to prohibit the location of most structures for human occupancy across active fault traces. However, the designated Fault-Rupture Hazard Zones do not necessarily indicate the furthest lateral extent of the potential fault rupture. The proposed project site is located approximately 9,000 feet (1.7 miles) east of the FRHZ for the active Calaveras fault and 9,000 feet

(1.7 miles) north of the FRHZ for the active portion of the Pleasanton fault. Because the proposed project site is not within, or immediately adjacent to, an active fault trace designated under the Alquist-Priolo Earthquake Fault Zoning Act, the potential for surface fault rupture to occur at the site is relatively low.

a-ii) The project site is located in a seismically active region of California with close proximity to the Calaveras and Pleasanton faults. The project site likely would be subjected to considerable ground motion during an earthquake from the two aformentioned faults or other major faults in the San Francisco Bay Area. These ground motions could exceed what the proposed tank or it appurtenances could withstand. **Measures GS-1** and **GS-2** would reduce potential seismic impacts to less-than-significant levels.

a-iii) In addition to ground shaking, the project area could be susceptible to earthquake-related seismic hazards including liquefaction, (in areas of unconsolidated alluvial material and high groundwater), ground settlement (in areas of loose, non-engineered fill or native alluvium), or seismically-induced landsliding (in areas of steep slopes). Extreme earth movements or settlements due to ground or slope failure could affect the integrity of the reservoir and pipeline facilities, causing rupture or system failure. **Measures GS-1** and **GS-2** would reduce potential seismic impacts to less-than-significant levels.

a-iv) The project site is in an area considered most susceptible to landsliding (Davenport, 1986). The susceptibility of land (slope) failure is dependent on slope and geology as well as the amount of rainfall, excavation or seismic activities. A landslide is a mass of rock, soil, and debris displaced down-slope by sliding, flowing, or falling. Steep slopes and down-slope creep of surface materials characterize areas most susceptible to landsliding. The project vicinity is characterized by areas with steep slopes underlain by discontinuous lenses of poorly consolidated claystone and siltstone with areas of well-consolidated sandstone (Davenport, 1986). As discussed below, the underlying bedrock is referred to as the Orinda Formation. These materials are typically overlain by clay exhibiting expansive characteristics that potentially can cause downslope creep. Although this area should be considered naturally unstable, construction in accordance with standard geotechnical engineering methods and compliance with Uniform Building Codes (see **Measures GS-1, GS-2,** and **GS-3)** would effectively reduce the risk of landsliding to a less-than-significant level.

The reservoir and pipeline facilities would be designed and constructed in accordance with Uniform Building Code Seismic Zone 4 requirements, using the Uniform Building Code (1997) or more stringent local building code provisions (see **Measure GS-1**). Compliance with these provisions would reduce potential seismic impacts to less-than-significant levels.

b) Construction activities involving soil disturbance, such as excavation, stockpiling, and grading, could result in increased erosion and sedimentation to surface waters. Erosion is likely with earthmoving activities associated with the project. Implementation of standard engineering erosion-control techniques (see **Measure WQ-1,** in Section VIII, Hydrology and Water Quality) would reduce potential impacts to water quality to less-than-significant levels.

c,d) The soils underlying the project site consist of less than five feet of topsoil. According to the Natural Resources Conservation Service (NRCS), the topsoils in the vicinity of the proposed

reservoir and pipeline facilities are well-drained Diablo clay. Underlying the topsoil are soft Tertiary-age (23 million-year-old) sedimentary rocks of the Orinda Formation. The sediments are uncemented, slightly consolidated sandstone, soft claystone and siltstone. For this analysis, the geotechnical investigations for the Amador tank were evaluated (Marliave, 1968). These previous investigations concluded that although the bedrock at this location is soft sandstone and claystone, it should provide an adequate foundation for a large capacity water tank. These geotechnical studies recommended standard engineering and design criteria that were employed for the Amador tank site and indicate that the site is suitable for development of Tank 1. Neither the Diablo Clay nor the underlying Orinda bedrock is considered expansive, but they do have a moderate consolidation potential, which would require standard earthwork operations and/or proper foundation design. The Orinda Formation has exhibited susceptibility to landsliding and slope failure in other locales in Contra Costa County. Please refer to Section VI.a for a discussion of liquefaction and landslide potential. As discussed above, the implementation of seismic and design measures (see **Measures GS-1, GS-2** and **GS-3**) would reduce potential soil instability hazards to less-than-significant levels.

e) No septic tanks are proposed for the project; therefore, no impacts are anticipated.

As with the design of any large project requiring foundation and structural engineering, design-phase geotechnical studies are needed to refine and finalize design parameters such as seismic criteria, foundations, engineered slopes, placed fills, compaction, and grading. Given that this area is developed with an existing large-capacity water tank and the general geologic characteristics of the underlying geology is understood by previous study, these geotechnical studies are not intended to determine whether it is feasible to construct the project but rather to recommend the proper soil and foundation engineering parameters.

Mitigation Measures

The following mitigation measures included by the DERWA Board of Directors as part of the conditions of approval for adoption of the SRVRWP Programmatic EIR have been modified to address Tank 1.

Measure GS-1: During the design phase of the project, DERWA will perform design-level geotechnical evaluations, which will include subsurface exploration and review of the seismic design criteria. Recommendations of the geotechnical report will be incorporated into the design and construction of the proposed facilities. DERWA will design proposed facilities in accordance with the 1997 Uniform Building Code's grading and applicable structural seismic response parameters and requirements for seismic design criteria in Zone 4, or EBMUD's more stringent criteria. Construction standards and water tank design for seismically active areas as provided by the tank manufacturer and/or the American Water Works Association (AWWA), if applicable, shall be considered for the foundation and lateral support design. .

Measure GS-2 (3.4.3 and 3.4.5): During the design phase of the project, DERWA will perform design-level geotechnical evaluations to verify that geologic features and materials occur as anticipated based on studies for the Amador Tank, and will include slope stability evaluations. The results of these evaluations will include measures that could reduce the risk of slope failure. Facility design and construction will incorporate the slope stability recommendations contained in the geotechnical evaluations. Mitigation techniques could include: appropriate slope inclination, terracing and toe support (e.g., not steeper than 2.5:1 for cut slopes and 3:1 for fill slopes, consistent

with Marliave, 1968); fill compaction; soil reinforcement; retaining wall design specifications; drainage and erosion control measures.

Measure GS-3 (3.4.4): On the basis of available information and with proper design, engineering and controlled construction activities, expansive soils considerations are not expected to adversely affect construction or operation of the proposed project; therefore, no additional mitigation is required.

Compliance with these provisions would reduce potential impacts to less-than-significant levels.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☒	☐	☐
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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VII. HAZARDS AND HAZARDOUS MATERIALS (cont.) -- Would the project:				
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) No chemicals associated with recycled water treatment would be stored on site. Construction activities would involve the use of certain potentially hazardous materials such as paints, fuels, oils, and solvents. These materials generally would be used for excavation equipment, generators, and other construction equipment, and would be contained within vessels engineered for safe storage. Spills during onsite fueling of equipment or an upset condition (e.g., puncture of a fuel tank through operator error or slope instability) could result in a release of fuel or oils into the environment.

Storage of large quantities of these materials at the construction site is not anticipated; however, the uncontrolled release of these materials would be a potentially significant impact. **Measures HM-1** requires that a Substance Control Program (Program) be developed and given to all contractors working on the project, and would reduce impacts from hazardous materials release to less-than-significant levels. The purpose of the Program is to provide on-site construction personnel, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of project elements.

c) There are no schools within one-quarter mile of the site. The nearest school is the Walt Disney Elementary School, on Pine Valley Road approximately 1.2 miles west of the proposed recycled water storage tank site. The proposed tank site is on the other side of the ridge from the school; no adverse effects are anticipated.

d) The project site is not listed in the "Cortese List", a hazardous waste and substances sites list, prepared by the California Department of Toxic Substances Control, pursuant to Government Code Section 65962.5.

In 1995, EBMUD analyzed the project site for lead concentrations due to lead-based paint originally used on the Amador tank. High concentrations of lead were found at the site, and remediation (removal) of contaminated soils was conducted by Universal Environmental (UE) in

November, 1995, and by Allwaste in June, 1997. Testing following the 1997 remediation verified that risk-based goals of the District had been achieved. A Remedial Closure Report summarized remediation activity (PES Environmental, Inc., 2001). DERWA shall require contractors to prepare a Hazardous Materials Management/Spill Prevention Plan, with specific provisions to protect both workers and the public (See **Measure HM-2**); the implementation of this measure, if contamination is encountered, would reduce potential impacts to less-than-significant levels.

e,f) There are no airports located within five miles of the project site; therefore, the project would not interfere with any airport operations.

g) Routine operation of the reservoir and pipeline facilities would not be expected to interfere with an emergency response plan or emergency evacuation plan. Please also refer to the Traffic section for a discussion of emergency access during construction.

h) Although the proposed reservoir and pipeline facilities would be located in and adjacent to rangeland areas (grazing/grassland), these are not habitable structures and therefore would not expose people to wildfire risks. No impacts are anticipated.

Mitigation Measures

The following mitigation measures were included by the DERWA Board as part of conditions of approval for adoption of the SRVRWP Programmatic EIR.

Measure HM-1 (3.2.5): Substance Control Program. Handling and storage of fuels and other flammable materials is governed by the California Occupational Safety and Health Administration (CAL/OSHA) standards for fire protection and prevention. These measures include appropriate storage of flammable liquids and prohibition of open flames within 50 feet of flammable storage areas. Construction documents will include a Substance Control Program for construction activities to reduce potentially significant impacts to water quality caused by chemical spill. This program will require safe collection and disposal of hazardous substances generated during construction activities, and will include an Emergency Response Program to ensure quick and safe cleanup of accidental spills.

Measure HM-2 (3.10.3): Hazardous Materials Management/Spill Prevention Plan. A Hazardous Materials Management/Spill Prevention Plan shall be prepared for construction crews that address the potential for encountering hazardous materials during trenching as well as a protocal for employing personal protective equipment.

Implementation of these measures would reduce potential impacts to less-than-significant levels.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VIII. HYDROLOGY AND WATER QUALITY – (cont.) Would the project:				
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 of 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 that 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?	☐	☐	☐	☒
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 that 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) Construction. Without mitigation, earthmoving activities associated with recycled water reservoir and pipeline construction could contribute to soil erosion and a subsequent degradation in water

quality. Implementation of standard erosion control techniques during project construction activities (see **Measure WQ-1**) would reduce potential water quality impacts to less-than-significant levels. A formal Storm Water Pollution Prevention Plan (SWPPP) is not required for this project; a SWPPP is required for areas of disturbance of five acres or more. However, implementation of Best Management Practices (BMPs) for erosion control, as required by **Measure WQ-1**, would avoid potential erosion and sedimentation to storm drains and receiving waters.

Operation. The recycled water would be used for non-potable uses only, such as landscape irrigation. The 1996 EIR analyzed impacts of DERWA's SRVRWP on water quality, with regard to water quality standards or waste discharge requirements. Use of recycled water would meet Title 22 treatment requirements for unrestricted use. Adherence of the proposed project to all appropriate Title 22 requirements (**Measure WQ-2**) would assure that potential impacts to water quality or public health would be reduced to less-than-significant levels.

b) The Project would not use groundwater, and would increase the amount of impervious surface in the area by a very small amount (approximately 0.5 acre). Therefore, the Project would have minimal impact on groundwater recharge.

c,d,e) The proposed recycled water tank would convert approximately 0.5 acre of rangeland to impervious surface. Project implementation would not affect any designated Wild and Scenic River waterways. Ground cover above installed pipelines would be restored after construction is completed. Therefore, the installation of the proposed storage and distribution facilities would not substantially alter the existing drainage patterns in the project vicinity because of the relatively small amount of impermeable surfaces that would be installed as a result of project implementation and the restoration of disturbed landscape areas. Storm drainage conditions would not be expected to change, with drainage routed to local storm drainage facilities within developed areas or to natural drainage channels within undeveloped areas. The proposed project would thus have no impact on downstream flood conditions.

f) Please refer to Sections VI.b and VIII.a, above.

g,h,i) The project does not propose homes or other habitable structures within the 100-year flood boundary. The project does not include any new structures that would impede or redirect flood flows.

As stated in Section VI, Geology and Soils, the project site is not within, or immediately adjacent to, an active fault trace designated under the Alquist-Priolo Earthquake Fault Zoning Act, and thus the potential for surface fault rupture to occur at the site is relatively low. However, the project site would likely be subjected to considerable ground motion during an earthquake that could exceed what the proposed tank or its appurtenances could withstand. In addition to ground shaking, the project area could be susceptible to earthquake-related seismic hazards including liquefaction, ground settlement, or seismically-induced landsliding. Extreme earth movements or settlements due to ground or slope failure could affect the integrity of the reservoir and pipeline facilities, causing rupture or system failure. Implementation of **Measures GS-1** and **GS-2,** which would require that the proposed tank be designed and constructed in accordance with Uniform Building

Code Seismic Zone 4 standards and with the recommendations of site-specific geologic and engineering studies, would reduce potential seismic impacts to less-than-significant levels.

Complete and sudden failure of the welded steel reservoir due to an earthquake or other conditions is extremely unlikely (no modern steel reservoir is known to have failed in this manner). If the reservoir did rupture, the release of water would be gradual due to the character of the welded steel construction (tearing would be the mode of failure, rather than complete collapse). Drainage would follow the topography, draining eastward down the slopes and into Alamo Creek. The proposed tank would be designed with an overflow structure that would tie into the existing Amador Reservoir overflow system. A 10-inch, 135-foot long gravity overflow pipe would be provided to protect the tank structure from damage in the event that pumps filling the tank continue to run during periods of no demand. The overflow pipe would be connected into the overflow system serving the adjacent Amador potable water tank, and would be used only on an emergency basis. The existing Amador overflow drain line consists of a 16-inch diameter pipeline that discharges into an energy dissipator approximately 400 feet east of the proposed Tank 1 site, within EBMUD property, at the top of an existing gully that drains into Alamo Creek. (The energy dissipator consists of a concrete outlet structure with wing walls, cutoff walls, and sacked concrete riprap for erosion control.) The overflow system directs flows into Alamo Creek (i.e., away from existing and future residences east of the proposed tank site).[3] Therefore, impacts relative to flooding are considered less than significant.

j) The project area is not subject to seiches, tsunamis, or mudflows, and no impacts are anticipated.

Mitigation Measures

Measure WQ-1: Best Management Practices shall be implemented to minimize potential water quality impacts during construction.

The District shall require contractors to implement Best Management Practices (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. These measures address procedures for controlling erosion and sedimentation and managing all aspects of the construction process to ensure control of potential water pollution sources. Erosion and sedimentation control practices typically include:

- limiting construction to the dry-weather months;
- installation of silt fencing and/or straw wattle;
- soils stabilization;
- revegetation; and
- runoff control to limit increases in sediment in storm water runoff (e.g., straw bales, silt fences, check dams, geofabrics, drainage swales, and sand bag dikes).

The following mitigation measures were included by the DERWA Board as part of conditions of approval for adoption of the SRVRWP Programmatic EIR.

[3] As discussed elsewhere in this Initial Study, Phase 4 of the Dougherty Valley Specific Plan (not yet fully approved, scheduled to be built in 10 to 12 years) would involve construction of residences east of the proposed tank site, adjacent to the realigned Dougherty Road.

Measure WQ-2 (3.10.1): Recycled water would not be used as a potable water supply, nor would it be used to directly recharge potable groundwater supplies. The recycled water produced by the DSRSD would meet the stringent Title 22 treatment requirements for unrestricted use. This level of treatment has proven to be, through both independent study and the test of time, fully protective of human health with regard to microbial pathogens. Because of the extensive level of treatment required, the water can be safely used for landscape irrigation, water contact sports, and the irrigation of food crops.

Measure WQ-3 (3.9.3): All areas along the proposed alignment disturbed by construction would be reseeded as soon as possible after construction (but before Fall rains) with a grass and forb mixture to reduce erosion hazards. The goal of this reseeding effort is to provide for erosion control and not to recreate a native grassland community; therefore, hydromulching with a non-native grass and form mix would be appropriate. If landscaped vegetation is removed along existing roads or residences, it shall be replaced in kind at a 1:1 ratio with appropriate landscaping species. All ground disturbed around the tank site shall also be reseeded as soon as possible (but before Fall rains) with a seed and forb mix as determined appropriate on a site-specific basis by qualified revegetation and/or erosion control specialist. Removal or disturbance of native vegetation will be avoided and minimized wherever possible. If landscaped species are removed, they shall be replaced at a 1:1 ratio with plant species typical of landscaped areas that are appropriate to the climatic and aesthetic site conditions.

Implementation of these measures would reduce potential impacts to water quality to less-than-significant levels.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☒	☐

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IX. LAND USE AND PLANNING (cont.) -- Would the project:				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion

a) The proposed project would construct a recycled water reservoir in unincorporated Contra Costa County and install pipelines within the County and the City of San Ramon. The proposed facilities would be constructed almost entirely in undeveloped areas. Therefore, the project would not result in a disruption, physical division, or isolation of existing residential areas, and no impacts would occur.

b) Refer to discussion under I., Aesthetics, for a discussion of project consistency with policies related to visual quality.

Development east of the reservoir site is covered by the Dougherty Valley Specific Plan. The Dougherty Valley Specific Plan identifies construction of approximately 11,000 building units in the Dougherty Valley in four phases. Phases I and II have been approved and are underway. Phase III will be decided in Spring of 2002; Phase IV, which includes construction of residences east of the reservoir site along Dougherty Road, is not expected to be built for 10-12 years (Simonson, 2001). The pipeline connecting the reservoir to the transmission main in (the future realigned) Dougherty Road would be adjacent and to the south of an existing PG&E powerline easement. DERWA will consult with the developers of the Dougherty Valley project to ensure that the future construction of residences and other facilities in the area do not conflict with pipeline operations.

It was determined in the 1996 EIR that once the project is completed, none of the Program facilities would be incompatible with current or planned land uses of areas in the vicinity of those facilities. In addition, recycled water would replace other potable and nonpotable water sources used for landscape irrigation at various water use sites, but would not require a change in land use or restriction to current use at any of the sites. Short-term, construction-related disruption to land uses within the vicinity of future facilities would occur as the components of these projects, including primarily the pipelines, are constructed. Specific environmental impacts, such as air quality, noise, and traffic impacts, would be mitigable and would not alter or substantially disrupt existing land uses. Once the project is completed, Program facilities would not disrupt or alter current or planned uses in the study area, and no mitigation is required. For these reasons, the proposed DERWA Tank 1 project would not result in long-term land use impacts, and no mitigation is required.

c) There is no habitat conservation plan in effect in the project vicinity. Please see Section IV.f.

Mitigation Measures

None required or recommended.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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) The California Division of Mines and Geology (CDMG) has classified lands within the San Francisco-Monterey Bay region into Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act (SMARA) of 1975 (Stinson et al., 1983). The CDMG classified urbanizing lands within the South San Francisco Bay Production-Consumption Region according to the presence or absence of significant sand, gravel, or stone deposits that are suitable as sources of aggregate. Areas classified as MRZ-1 are areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little or no likelihood exists for their presence. MRZ-2 areas are those where adequate information indicates that significant deposits are present. Areas classified as MRZ-3 contain mineral deposits, but their significance cannot be evaluated from available data. Areas are classified as MRZ-4 where available information is inadequate for assignment to any other MRZ category.

The project site is classified as MRZ-4, and information is inadequate for classification. There are no known mineral resources located in the project vicinity and no impact is anticipated from project construction or operation.

Mitigation Measures

None required or recommended.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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,b,d) Project construction would result in intermittent, elevated noise levels at nearby noise-sensitive residential areas. Construction of the project is anticipated to commence in Spring 2004, with construction occurring intermittently over one year. Construction activities would involve excavation, grading, earth movement, and vehicle travel to and from the project site. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used.

The proposed tank would be constructed by conventional methods. During construction, concrete for the foundation would be delivered to the site by ready-mix trucks; backhoes and bulldozers would be used for earthmoving; a crane would set structural components and equipment; and supply trucks would deliver materials and equipment used in the construction process. Additional equipment likely to be used includes welding machines, air compressors, and various air- and electric-powered hand tools.

During tank construction, the above-described construction equipment would generate noise in the range of 68 to 96 dBA at 50 feet (U.S. EPA, 1971), depending on type of equipment in use at a given time. Assuming an attenuation rate (lessening) of 6 dBA per doubling of distance, noise at the nearest residences 1,000 feet away could be as high as 70 dBA during tank installation activities.

Pipeline installation would use standard open-cut trenching techniques for the majority of the alignments. The pipeline connecting to the DERWA recycled water main in Dougherty Road would extend across Alamo Creek. Pipeline installation could occur as close as 100 feet from the nearest residences. At this distance, the noisiest construction equipment could be as high as 90 dBA. Noise at these levels would be significantly above current levels, but would be temporary and relatively short in duration. The pace of construction would move noise sources on a daily basis as portions of the pipeline are completed. Construction of the pipeline would occur at an average rate of 150 feet per day for open-trench segments and approximately 20 feet per day for the tunneling segment. For bore and jack construction under Alameda Creek, surrounding properties would be affected for a longer duration, depending on the length and depth of the construction.

Contra Costa County does not have a noise ordinance in place, but has policies related to construction that are contained in the Noise Element of the General Plan (Contra Costa County, 1996). General Plan Policy 11-8 states that "construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods." The County also has standard conditions of approval that it implements through its permitting process, and they include hourly limitations on construction activities and equipment operation.

The Noise Element of the San Ramon General Plan has a policy to minimize noise emanating from temporary activities and restricts the hours of operation for a variety of noise sources (City of San Ramon, 1995). Some form of noise mitigation is required for all projects that have noise exposure greater than "normally acceptable levels," which include up to 60 Ldn in residential areas and around noise-sensitive receptors, such as churches, schools, and hospitals, and up to 70 Ldn for playgrounds and neighborhood parks. The San Ramon Noise Ordinance does not specify construction noise limits, but restricts the operation of construction equipment to the hours between 7:30 a.m. and 7:00 p.m. on weekdays as well as between 9:00 a.m. and 6:00 p.m. on weekends. No construction is allowed on holidays.

Overall project construction would temporarily increase ambient noise levels. The increase in ambient noise levels would have a temporary impact on nearby noise-sensitive residential areas. Without mitigation, the temporary and intermittent noise levels from construction activities would constitute a significant impact. Implementation of **Measures N-1** through **N-4** would reduce potential noise impacts associated with construction activities to less-than-significant levels. These measures include limitation of construction hours and the use of controls on construction equipment.

c) The operation of the proposed recycled water storage and distribution facilities would not involve noise-generating equipment, and therefore would not cause a substantial permanent increase in

ambient noise levels. Thus, the operational impact on ambient noise levels is considered less than significant.

e,f) The proposed project is not located within an airport or a private airstrip. Therefore, there are no impacts associated to exposing workers with excessive noise levels from airport activities.

Mitigation Measures

The following mitigation measure was included by the DERWA Board as part of conditions of approval for adoption of the SRVRWP Programmatic EIR. The measures below are consistent with and implement this measure.

Measure N-1 (3.7.1): Adherence to local ordinances regulating hours of construction would minimize the potential for sleep disturbance and annoyance, because heavy construction would be limited to daytime hours. All equipment would be equipped with mufflers equal or superior in noise attenuation to those provided by manufacturer of the equipment. In addition, idling equipment would be shut off and temporary or portable acoustic barriers would be installed around stationary noise receptors that are located in proximity to potentially sensitive noise receptors.

Measure N-2: DERWA shall limit construction activities to between the hours of 7:30 a.m. and 7:00 p.m. on weekdays, and between 9:00 a.m. and 6:00 p.m. on weekends. Construction activities shall be prohibited on holidays.

Measure N-3: To the extent feasible, construction contractors shall locate fixed construction equipment such as compressors and generators as far as possible from noise-sensitive receptors. Contractors shall shroud or shield all impact tools, and muffle or shield all intakes and exhaust ports on power construction equipment. Construction vehicles should be properly maintained and equipped with exhaust mufflers that meet state standards.

Measure N-4: Impact tools (e.g., jack hammers and pavement breakers) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves should be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used such as drilling rather than impact equipment whenever feasible.

These measures would reduce potentially significant construction noise impacts to less-than-significant levels.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 DERWA Tank 1 project will serve Pressure Zone 1 of DERWA's SRVRWP. The complete DERWA system will provide an ultimate annual average capacity of approximately 5.7 million gallons per day. The potential growth-inducing aspects of the project have been addressed in Section 4.1 of the 1996 EIR, which is incorporated herein by reference and summarized below.

The 1996 EIR described potential growth-inducing effects of the SRVRWP. Although the SRVRWP could "free up" some of the potable water supply originally applied to landscape irrigation, this availability has already been accounted for in the water supply planning documents of both EBMUD and DSRSD. SRVRWP facilities would only be built in association with projects approved for development through the planning and environmental review process. Finally, although water recycling programs can be perceived as being growth inducing because wastewater is diverted from disposal points to reuse, the DERWA SRVRWP will not be designed, permitted, or operated to allow for increase wastewater disposal capacity, but instead is strictly related to water supply. Therefore, the DERWA SRVRWP, including the proposed facilities, will not have significant growth-inducing effects and no mitigation is required.

b,c) The proposed project would not displace existing housing; therefore, this project would not necessitate the construction of replacement housing elsewhere.

Mitigation Measures

None required or recommended.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 1996 EIR addressed the project's potential to induce growth, and the secondary effects of growth (including increased demands on public services). The 1996 EIR determined that growth within the DERWA service area would indirectly increase demands for public services. In order to mitigate the potential impact, the 1996 EIR and the subsequent Statement of Findings recommended that future new development occurring in the service area should be evaluated on a case by case basis for effects on public services, and additional new development impact fees and formation of assessment districts or other conditions should be considered where service agencies are unable to maintain level of service through existing methods of financing. However, full mitigation of these impacts are under the control of agencies other than DERWA.

Mitigation Measures

None required or recommended.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XIV. RECREATION (cont.) --				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

a,b) The project would not affect demand on parks or other recreational facilities, nor does it require construction or expansion of recreational facilities.

The project site is located in the Dougherty Hills open space area east of the City of San Ramon. Residential development is occurring east of the project site along Dougherty Road. As part of the Dougherty Valley Specific Plan, a trail plan has been developed, with the purpose of linking subdivision areas to urban areas of San Ramon. The trail plan was approved in November, 2001. The plan identifies hiking/biking trails throughout the Dougherty Hills (Simonson, 2001; Moreira, 2001). A 10-foot wide earthen trail is proposed for the top of the Dougherty Hills ridgeline, to the northwest and west of the proposed reservoir. The closest section of this trail would be 600 feet away on the ridgeline adjacent to the reservoir.

Mitigation Measures

None required or recommended.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XV. TRANSPORTATION / TRAFFIC -- Would the project:				
a) Cause an increase in traffic that 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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XV. TRANSPORTATION / TRAFFIC – (cont.) Would the project:				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
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) The project would have very little direct effect on roadways. The proposed alignments for the two pipelines from the tank to planned DERWA recycled water transmission mains in Alcosta Boulevard and Dougherty Road traverse open space. Pipeline construction would encroach into public rights-of-way only where the pipelines would connect to the transmission mains. At those locations, one or more travel lanes of Alcosta Boulevard and Dougherty Road would be disrupted during construction. The exact placement of the transmission mains within the roadways has not yet been determined. Prior to pipeline construction, DERWA will obtain encroachment permits from the City of San Ramon and Contra Costa County. DERWA will require that contractors restore paved areas disturbed by pipeline construction to pre-project structural conditions.

Construction activities that would generate traffic would consist of trucks hauling equipment and materials to the project site and pipeline alignments, the delivery of backfill to the work sites, and the daily arrival and departure of construction workers to and from the work sites. Earthwork for the project, excavation and fill for construction of the tank pad and pipeline installation, would generate the greatest number of off-site truck trips. Soil excavated for the tank pad would be reused on site for construction of an earthen berm to provide visual screening. Approximately 3,800 cubic yards of engineered structural fill would be hauled to the site during this phase. Assuming that the fill was hauled to the site over a two-week period, approximately 38 truckloads per work day would be required. Pipeline construction is estimated to proceed at about 150 feet per day for open-trench construction segments and about 20 feet per day for the tunneling segment. Earthwork associated with pipeline construction would generate an estimated 25 round-trip truck trips per day, based on the following assumptions:

- Trench width: 2.8 feet
- Trench depth: 7.8 feet
- Cut quantity: 123 cubic yards per day (no reuse assumed)
- Backfill quantity: 116 cubic yards

Construction phasing has not yet been determined. Assuming that earthwork for the tank and open-trench pipeline construction occur simultaneously, for purposes of this analysis it is assumed that during peak construction activities the project could generate up to 62 round-trip truck trips per day, or 7.75 round-trip truck trips (16 one-way trips) per hour for a normal workday. This is considered a conservative, worst-case estimate.

Construction workers would be commuting to and from the project sites, most likely in personal automobiles or small trucks. An estimated 20 workers would be expected to commute to and from the storage tank site on a daily basis, while construction crews of 10 workers would be expected for pipeline construction.

Based on the existing roadway network serving the project area, project trucks and construction workers traveling to and from the project site would use a combination of highways (Interstate 680), City streets (Alcosta Boulevard, Bollinger Canyon Road and Old Ranch Road), and County routes (Dougherty Road) to reach other local points and/or regional locations.

Construction-generated traffic would be temporary and therefore would not result in any long-term degradation in operating conditions or level of service on any project roadways. The primary off-site impacts from the movement of construction trucks include short-term and intermittent lessening of roadway capacities due to slower movements of the trucks and larger turning radii of the trucks compared to passenger vehicles. The temporary increase in traffic is considered insignificant in relation to the existing traffic load and capacity of the street system, since truck and worker vehicle trips would be dispersed throughout the day. The implementation of **Measure T-1**, preparation of a Traffic Control Plan, would further reduce potential traffic impacts to local roadways.

c) The proposed project would not affect air traffic patterns, and therefore no impact would occur.

d,e) Construction activities at the reservoir site would not obstruct emergency access; however, connection of the proposed pipelines to planned recycled water transmission mains in Alcosta Boulevard and Dougherty Road could result in delays to emergency vehicles. Pipeline installation at these locations is expected to last two weeks or less. Implementation of **Measure T-1**, below, would ensure that this impact would be reduced to a less-than-significant level.

f) Project engineers propose to store equipment and trucks, and to provide parking for construction worker vehicles on site. Preparation of a Traffic Control Plan (see **Measure T-1**) would include the development of a Construction Parking Plan to ensure that construction workers would park only in designated areas. Therefore, no long-term displacement of on-street parking would occur in the vicinity of the construction site.

g) All adverse impacts to transportation would be temporary, and would not affect any adopted policies, plans, or programs. Public transit is limited in and around San Ramon and no adverse effects would be expected.

Mitigation Measures

Measure T-1: DERWA shall arrange for the preparation of a detailed Traffic Control Plan (TCP) to be prepared by a licensed traffic engineer. The TCP shall be prepared in accordance with professional traffic engineering standards to show specific methods for maintaining traffic flows on roadways directly affected by project construction, and shall include, at a minimum, the following elements:

- Haul routes minimizing truck traffic on local roadways shall be used to the extent possible. A letter confirming DERWA's intention to use these haul routes shall be submitted to the County Department of Public Works prior to the issuance of any permits.
- The TCP shall arrange for safe detours for pedestrians and bicyclists at all construction sites. The contractor shall install appropriate barriers or fencing around construction zones and put up signage showing detours to ensure the safety of pedestrians and bicyclists.
- Where feasible, alternate one-way traffic flow past the pipeline construction zone shall be maintained at pipeline installation sites.
- The contractor shall be required to maintain access to driveways and side streets at all times with alternate routes or steel plates across open trenches, as appropriate.
- Access for emergency vehicles shall be provided at all times.
- Construction trenches in streets shall not be left open after work hours.
- The TCP shall develop a Construction Parking Plan that includes an estimate of the number of workers that will be present on the site during various phases of construction and indicates where sufficient off-street parking will be provided. The Plan must be submitted to the public works departments of the City of San Ramon and Contra Costa County prior to construction. DERWA shall enforce the TCP during construction.

Implementation of these measures would reduce potential impacts to less-than-significant levels.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XVI. UTILITIES AND SERVICE SYSTEMS (cont.) -- Would the project:				
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 that 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 is limited to construction and operation of recycled water storage and distribution facilities. Facility operation would be in accordance of Department of Health Services requirements for water treatment and monitoring. Therefore, project implementation would not result in any exceedance of wastewater treatment requirements.

b,e) The proposed project consists of construction and operation of recycled water storage and distribution facilities, and would have a beneficial effect on water supplies.

c) The proposed reservoir would not increase the need for additional off-site storm water drainage facilities. Ground cover above distribution pipelines would also be replaced to prior existing conditions.

d) The proposed project does not require water entitlements.

f) Solid waste generation would be limited to construction activities, and would not affect available solid waste disposal capacity in the region. No long-term solid waste generation would be associated with the proposed project.

h) The contractor would be required to comply with all pertinent regulations regarding the disposal of solid waste generated by construction activities.

Mitigation Measures

None required or recommended.

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

a-c) The proposed project would have environmental impacts that would adversely affect plants, wildlife, and human beings. These impacts are identified in this Initial Study. Human beings would primarily be affected by increased noise levels and traffic congestion during construction. Plants and wildlife would be affected by construction activities, particularly by pipeline construction across Alamo Creek. However, the mitigation measures identified in this Initial Study would reduce these impacts to less-than-significant levels.

No significant cumulative impacts would be expected. Cumulative impacts resulting from buildout under the DERWA SRVRWP have been addressed in the corresponding EIR (DERWA, 1996).

SECTION 3.0
REPORT PREPARATION

3.1 LEAD AGENCY

The Dublin San Ramon Services District • East Bay Municipal Utility District Recycled Water Authority (DERWA) is the lead agency under CEQA for the preparation of the DERWA Tank 1 Project.

Staff Member	Role
Laura Johnson	Authority Manager
Linda Hu	Engineering Support Manager
Lori Steere	Public Outreach Coordinator

3.2 PROJECT COORDINATOR

DERWA retained ESA to prepare this Initial Study/Mitigated Negative Declaration. Project engineering and visual simulations were provided by Camp Dresser & McKee, Inc.

ESA

Staff Member	Role
Jill Hamilton	Project Manager
Marie Galvin	Aesthetics Analysis
Michelle Kondo Murray	Land Use, Geology/Soils, Public Services and Utilities Analyses
Tom Roberts	Biological Resources Analysis
Arnold Gerstell	Biological Resources Analysis
Nanette Sartoris	Air Quality and Noise Analyses
Ross Way	Cultural Resources Analysis
Lisa Crossett	Graphics
Perry Jung	Graphics

CAMP DRESSER AND MCKEE, INC.

Staff Member	Role
John A. Burgh	Project Engineer
James Wang	Visual Simulations

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ESA Environmental Science Associates

MEMORANDUM

TO • Dublin San Ramon Services District • East Bay Municipal Utility District Recycled Water Authority (DERWA)

FROM • Environmental Science Associates

DATE • August 8, 2002

SUBJECT • Discussion of Issues Raised in Comments on the Mitigated Negative Declaration for the DERWA Tank 1 Project

Introduction

This Memorandum has been prepared to discuss issues raised in comments received by Dublin San Ramon Services District • East Bay Municipal Utility District Recycled Water Authority (DERWA) on the Mitigated Negative Declaration (MND) for the DERWA Tank 1 Project. The DERWA Tank 1 Project is part of the San Ramon Valley Recycled Water Program (SRVRWP), which will supply recycled water to portions of the Dublin San Ramon Services District (DSRSD) and East Bay Municipal Utility District (EBMUD) service areas in the San Ramon Valley. The DERWA Board of Directors approved and certified a Program Environmental Impact Report (PEIR) on the SRVRWP in December 1996 (referred to herein as the 1996 EIR). The DERWA Tank 1 project was evaluated at a program-level of detail in that EIR. Consistent with Section 15152 of the *California Environmental Quality Act* (CEQA) *Guidelines*, the draft Mitigated Negative Declaration and Initial Study for the Proposed DERWA Tank 1 Project tiers off of the Program EIR.[1]

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, DERWA proposes to adopt the Mitigated Negative Declaration for the project modifications.

The CEQA Process

In accordance with Section 15073 of the CEQA Guidelines, the MND was circulated to local, state and federal agencies and to interested organizations and individuals for public review from May 24th, 2002 to June 24th, 2002. DERWA held two public information meetings during the review period, on June 10th and June 12th, to describe the project and the contents of the MND. During the public review period, DERWA received three letters containing comments on the

[1] "Tiering" refers to using the analysis of general matters contained in a broader EIR with subsequent EIRs or Negative Declarations on narrower projects, incorporating by reference the general discussions from the broader EIR and concentrating the later environmental document solely on the issues specific to the subsequent project.

MND, as well as letters from the State Clearinghouse acknowledging compliance with CEQA. All written comments received by DERWA regarding the adequacy and accuracy of the MND are presented in this document. Table 1 lists the entities that submitted written comments on the MND during the public review and comment period. The author of each comment letter and the author's affiliation are also given in the table. A summary of issues raised in the comments and a discussion of those issues follow.

TABLE 1
PERSONS, ORGANIZATIONS, AND PUBLIC AGENCIES COMMENTING IN WRITING

Comments Received From	Affiliation	Date
Edward A. Wylie	U.S. Army Corps of Engineers	May 31, 2002
Jean C. R. Finney	Caltrans	June 4, 2002
Joye Fukuda	City of San Ramon	June 24, 2002

The discussion presented below responds to public comments and either clarifies or amplifies information presented in the MND, discusses items that may not have been analyzed because they were not considered significant impacts of proposed project modifications, or augments existing measures in response to requests from other agencies. Because no new significant impacts were identified as a result of responding to comments, and all existing mitigation measures are adequate to reduce potential effects to less-than-significant levels, the impact analysis presented in the MND has not been revised. Two minor text changes were made by DERWA staff and are presented below; these changes do not affect the impact analysis. Therefore, this Memorandum, in combination with the Mitigated Negative Declaration, completes the Final MND and no recirculation of the MND is warranted[2].

Issues Raised in Comments on the MND

Comments on Alamo Creek and an Unnamed Drainage

- *The Environmental Checklist indicates the pipeline facilities associated with this project propose to cross Alamo Creek and an unnamed drainage to the west of the tank site. Alamo Creek and the unnamed drainage may be considered Waters of the United States. Your proposed work may impact waters of the United States, thus requiring review by the Corps of Engineers. (U.S. Army Corps of Engineers)*

  All proposed discharges of dredged or fill material into waters of the United States must be authorized by the Corps of Engineers pursuant to Section 404 of the Clean Water Act (CWA)

[2] CEQA Guidelines Sections 15073.5(a) and (b) specify the conditions by which recirculation of a Negative Declaration is needed. Section 15073.5(a) requires a lead agency to recirculate a Negative Declaration when the document must be substantially revised after public notice of its availability but prior to its adoption. A substantial revision is defined as either (1) the identification of a new, avoidable impact for which new mitigation measures or project revisions are required, or (2) a determination by the agency that previously identified mitigation measures or project modifications are ineffective in reducing a previously identified significant impact and new mitigation measures or project revisions are required.

(33 U.S.C. 1344). Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), and wetlands. Your proposed work appears to be within our jurisdiction and a permit may be required. (U.S. Army Corps of Engineers)

Discussion – Potential Impacts on Alamo Creek and Unnamed Drainage

Page 16 of the MND acknowledges that the project has the potential to affect wetlands and/or other aquatic resources under the jurisdiction of the U.S. Army Corps of Engineers. DERWA will implement Mitigation Measure B-2, presented on page 17 of the MND, requiring that a formal wetland delineation be prepared and a Section 404 permit application be submitted to the Corps. DERWA will comply with the conditions of the 404 permit.

Comments on Transportation and Traffic Impacts

- *We have reviewed the Initial Study/Mitigated Negative Declaration, and we are satisfied that the proposed activities will not significantly impact the State highway system. (Caltrans)*

- *Please include in the document the issue of traffic safety on Alcosta Boulevard at the construction access road for both ingress and egress of haul trucks. (City of San Ramon)*

- *This project consists of a tank and two waterlines with the vast majority of the document addressing reservoir issues. The westerly distribution line (from the tank) is detailed partly in Section 1.3.3 on Page 1-8 and also under Discussion (of Transportation and Traffic Sub-sections a and b). The assumption made is that the crossing of Alcosta Boulevard will entail a trench cut versus boring/jacking operations. That assumption should not necessarily be made. In addition reference is made to a water distribution line (Figure 2) northerly in Alcosta Boulevard which is potentially more disruptive than the crossing but about which nothing is mentioned. Is that part of the project and if not, will other studies be provided at the right time? (City of San Ramon)*

- *The study did not address the impacts on pavement degradation due to the number of truck trips generated from the grading of the site, and installation of the tank and pipelines. In Section XV (Transportation/Traffic) of the Environmental Checklist (page 2-38), please add to the end of the first paragraph of the Discussion section:*

  "which may include appropriate pavement restoration mitigation for the full lane width and submittal of a pre-construction pavement survey." (City of San Ramon)

- *Comments on Mitigation Measure T-1, page 2-40, please delete the entire first bulleted item and replace with the following:*

  "Haul routes will be submitted with the TCP and will be reviewed as part of the TCP. The routes will restrict all construction traffic to arterial streets (except Old Ranch Road where construction traffic shall be prohibited). Haul routes will not include U-turns." (City of San Ramon)

- *Please delete entire third bulleted item. (This item is excessively ambiguous due to possible variations in the definition of "feasible," and proposed access alternatives will be evaluated with TCP. This item does not constitute a mitigation measure.) (City of San Ramon)*

- *Please modify the fourth bulleted item as follows:*

"The contractor shall be required to maintain two-way access to driveways and side streets at all times with alternate routes as approved in the TCP, or with steel plates across open trenches, as appropriate." (City of San Ramon)

- *Please modify the second sentence of the last bulleted item under Measure T-1 to read as follows:*

  "The Plan must be submitted and approved by the public works department of the City of San Ramon prior to any construction." (City of San Ramon)

- *Please add the following two new bulleted items:*

  "The access driveway on Alcosta Boulevard shall be designed so that turning trucks will be completely removed from the traveled way in advance of the turning maneuvers. No left-turn (median break) access shall be provided."

  "The contractor will post bonds to protect City against pavement damage." (City of San Ramon)

Discussion - Transportation and Traffic Impacts

The comment submitted by Caltrans is acknowledged.

Traffic Safety and the Access Road. The City is concerned that the turning radii of construction trucks would extend into both lanes of Alcosta Boulevard as they turn into, and out of, the access road. Trucks related to existing operations and recent maintenance projects at the facility adequately access the project driveway without the need for any roadway modifications at the driveway and approach on Alcosta Boulevard. Accordingly, it is not anticipated that project construction trucks would require any modifications to the driveway entrance or approach to ingress and egress the site. No accidents involving EBMUD vehicles have occurred in the project area in at least the past ten years. As under existing conditions, traffic generated at the project site would be right-turn-in / right-turn-out, reducing the potential for conflicts with opposing vehicular traffic. No breaks in the median on Alcosta Boulevard are proposed. Moreover, the majority of temporary construction traffic would occur outside of peak commute hours, and would be dispersed throughout the day and therefore would not result in queueing on Alcosta Boulevard. No nighttime construction would occur, and thus trucks would travel during daylight hours. For these reasons, the proposed project is not anticipated to result in any significant traffic safety impacts in the vicinity of the project entrance. In response to the City's concern, the following bulleted measure is added to Measure T-1 of the MND:

- The Traffic Control Plan will identify measures to promote traffic safety at the intersection of Alcosta Boulevard and the access road, which may include signage, markings, and flags. These measures will be reviewed by City staff as part of the encroachment permit process.

Pipeline in Alcosta Boulevard. The pipeline extending north-south within Alcosta Boulevard, shown in Figure 2 of the MND, is not proposed as part of the Tank 1 project, but is part of the larger SRVRWP. The pipeline was evaluated at a project level of detail in the 1996 EIR. DERWA will submit the appropriate documentation for this pipeline, and other pipeline segments within the City (see MND Figure 2), in order to obtain encroachment permits from the City. The

western pipeline of the Tank 1 project will encroach into Alcosta Boulevard perpendicular to the roadway, and will not cross the roadway. Consequently, jack-and-bore construction is inappropriate.

Pavement Impacts. The use of heavy trucks to transport equipment and material to and from the project site could affect road conditions by increasing the rate of road wear. The degree to which this impact would occur depends on the type of project-generated traffic, and the design (pavement type and thickness) and existing condition of the roadways. According to the City of San Ramon General Plan, the roads construction vehicles would use to access the project site—Alcosta Boulevard, Bollinger Canyon Road and Dougherty Road—are classified as arterial roadways, and thus are constructed to accommodate high traffic volumes and intra-city circulation. The project's impact is assumed to be minimal on arterials and designated truck routes that are designed to accommodate a mix of vehicle types, including heavy trucks. In discussions between DERWA and City staff, the City requested that DERWA do a pre-construction survey of haul routes and conduct a truck count on Alcosta Boulevard. Mitigation Measure T-1 is modified to include the following text:

- Conduct a pre-construction survey to document road conditions on all construction routes to the project site. Conduct a truck count on Alcosta Boulevard. All construction traffic will be required to be within the legal posted road limits. If roads are damaged by excessive construction loads then they will be repaired to a structural condition equal to that which existed prior to construction activity.

DERWA has delegated construction and design of the proposed Tank 1 project to EBMUD. Therefore, EBMUD's policies for construction will apply. Currently, EBMUD policy does not include any requirements that the contractor post bonds for potential pavement damage.

Haul Routes. Consistent with the City's comment, the first bullet under Measure T-1 on page 2-40 of the MND will be replaced with the following:

- Haul routes will be submitted with the TCP and will be reviewed as part of the TCP. Haul routes will be included in the contract specifications. The routes will restrict all construction traffic to arterial streets (except Old Ranch Road where construction traffic shall be prohibited). DERWA will post signs at each end of Old Ranch Road to indicate that project construction vehicles are prohibited. As a requirement of the Tank 1 construction contract(s), DERWA will require that haul routes not include U-turns.

Maintaining Access. DERWA agrees to delete the following text from Mitigation Measure T-1 on page 2-40 of the MND:

- "Where feasible, alternate one-way traffic flow past the pipeline construction zone shall be maintained at pipeline installation sites."

For this project, no pipeline construction would occur across any driveway. The construction contract will require the contractor to maintain access to driveways and side streets at all times with alternate routes or steel plates across open trenches, as stated in the fourth bullet under Mitigation Measure T-1 (page 2-40). Two-way access is currently not available to driveways along Alcosta Boulevard due to the presence of the roadway median.

The Traffic Control Plan will be submitted to the City of San Ramon's public works department for review and approval prior to construction within City streets.

Comments on Visual Quality Impacts

- *Please be advised that the Mitigated Negative Declaration submitted for our comments does demonstrate compliance with applicable policies, with the exception of Ordinance 197 (Resource Conservation Overlay Zoning District) as stated in the following General Plan Policy:*

  > *Policy 4.6-I-9:*
  > *Require that development applications for projects within the City's Sphere of Influence conform to the standards of Ordinance 197, where applicable. (City of San Ramon)*

  The most significant planning issue is the visual/aesthetic impact of the new tank, as the site is located on an existing major ridgeline. Ordinance 197, which requires that at a minimum, a separation of 100 vertical feet be kept for development near a major ridgeline, was adopted in 1990 with the intent of preserving and protecting views associated with the hills surrounding the San Ramon Valley area. The existing EBMUD tank already on site was built before this ordinance was in place. (City of San Ramon)

- *Consider sinking the tank significantly below the proposed 600' elevation to further mitigate for its visual impact and minimize its visible bulk above ground level. In addition, consider further screening the tank with a combination of a decorative wall and landscaping to mitigate for the visual impact as seen from adjoining residential neighborhoods, and future Dougherty Valley Development. (City of San Ramon)*

- *Submit construction plans and detail drawings (site plan, grading, elevations, and cross-sections), when available, for Planning Services review and approval prior to final colors, landscaping, grading and retaining wall approval. (City of San Ramon)*

- *Final construction plans should clearly demonstrate that the tank will not extend above the ridgeline to the west, and therefore it will not be silhouetted against the sky (as discussed in the environmental/aesthetic analysis). (City of San Ramon)*

- *Please consider using the same color for both the existing and proposed tanks. The City wishes uniformity in color. (City of San Ramon)*

- *Please consider the provision of mitigation planting for residents living along Pine Valley Court. Such landscaping may be subject to ARB review and public input from residents. (City of San Ramon)*

Discussion – Visual Quality Impacts

DERWA acknowledges that the City finds that the proposed project would be inconsistent with Ordinance 197. Ordinance 197, an initiative passed by the voters of the City of San Ramon, was adopted by the City Council in August 1990, and consequently was codified in the City's Resources Conservation Overlay Zoning District (RCOD). The Land Use, Open Space, Traffic and Circulation, Housing, and Conservation elements of the San Ramon General Plan were

amended to incorporate elements of the ordinance. For informational purposes, the MND (page 2-9) discusses consistency of the proposed project with the provisions of the ordinance.

The City's comments require clarification of the City's authority over the Tank 1 project. DERWA will require an encroachment permit from the City for that portion of the western pipeline located in public rights-of-way within the City's boundaries (refer to MND Figure 1, page 1-4). Because the Tank 1 project is expressly and solely for the storage and transmission of water, the project is exempt from local zoning and building ordinances pursuant to California Government Code Section 53091 et seq. DERWA is not required to submit a development application to the City or to the County (note that in any case, the Tank 1 site is in unincorporated Contra Costa County), nor do construction plans require approval by the City's Planning Services.

While the MND discusses project consistency with the provisions of Ordinance 197, Ordinance 197 does not make any distinction between a pristine undeveloped hillside and a site that has been modified. Consideration of the existing conditions of a site, and determining a project's impact by comparing existing conditions and future-with-project conditions, is the appropriate basis for determining the significance of visual impacts under CEQA and, therefore, the scope and focus of measures required to reduce the impact to a less-than-significant level.

Dropping the tank level substantially below the proposed 600-foot elevation would reduce service pressures to customers in Pressure Zone 1 to unacceptable levels. This tank elevation is required to allow the system to operate satisfactorily for customers within the pressure zone, which include customers throughout the City of San Ramon. Lowering the elevation of the tank would be particularly injurious to service for customers at the higher elevations in San Ramon and other areas within the pressure zone. Note that DERWA is still designing the tank and has not determined whether it will be a steel or concrete tank. If a concrete tank is constructed, then the berm could abut the wall of the tank, creating the appearance that the tank is partially buried in views from the east and more effectively mitigating the visual impact.

While decorative walls and landscaping have been used to mitigate visual impacts for other water tanks, this is usually at locations where sensitive viewpoints are close to the tank and the landscaping is intended to blend the tank site with the surrounding area. In this case, the viewpoints are not very close to the tank site and the vegetation on the surrounding hillsides is grasses. Consequently, it is doubtful whether a decorative wall would provide any benefit beyond that provided by the proposed mitigation, and landscaping for the purposes of *screening* the tank by planting trees would heighten the contrast of the site with its surroundings and unnecessarily draw attention to it (this point was acknowledged by City staff at DERWA's presentation to the City Council on April 25, 2002). However, DERWA will consider the use of landscaping on the berm.

As stated on page 2-9 of the MND, and as shown in Figures 6, 7, and 8 of the MND, the proposed tank will not extend above the ridgeline to the west, and therefore it will not be silhouetted against the sky. The simulations of the proposed tank presented in Figures 6, 7, and 8 incorporate the dimensions shown in Figure 4 on page 1-7 of the MND, and therefore the simulations accurately depict the height of the proposed tank.

DERWA will work with City staff to ensure that the tanks are painted the same earth-tone color. The existing EBMUD tank at the project site was recently painted as part of routine maintenance. The tank was painted olive green, which is the color EBMUD typically paints its facilities. The tank was painted after the visual simulations presented in the MND were prepared, so the new

color is not shown in Figures 6, 7, and 8 of the MND. Current plans are to paint the proposed tank a sand color, in which case the tanks would be different colors and would blend with the surrounding landscape at different times of the year. Mitigation Measure A-2 of the MND is changed as follows:

> **Measure A-2:** DERWA shall provide visual mitigation for the proposed reservoir, including construction of an earthen berm adjacent to, and east of, the reservoir, as depicted in **Figures 6 and 7** of this Initial Study, and use of low-glare, earth-tone paint. ~~DERWA will select a paint color that approximates the golden color of grasses on surrounding hillsides.~~

Although pipeline construction temporarily would be visible to residents along Pine Valley Court, the proposed tank would not be visible from this location. Following pipe installation, the trench would be covered and restored to pre-project conditions. Therefore, the proposed project would not result in long-term impacts on views of the site from Pine Valley Court. Consequently, mitigation planting for homes along Pine Valley Court is not needed.

Comments on Potential Drainage Impacts

- *Please comment on and provide mitigation measures for the potential of dirts or soils being deposited on Alcosta Boulevard by trucks or construction vehicles exiting the access road. (City of San Ramon)*

- *The City is concerned with debris entering the affected City storm drain system. Please add to the document a mitigation measure requiring the inspection and clean out of affected City storm drain inlets prior to the start of and during the wet weather season. (City of San Ramon)*

- *It is the position of this document (Under Discussion of Hydrology and Water Quality Sub-sections g, h, and I – Page 28) that the placement of the DERWA tank in close proximity to EBMUD's existing tank will allow project to take advantage of existing tank's drainage infrastructure (discharge system) without further mitigation. It would appear that this approach needs further analysis to assure that the external forces which could cause damage (leakage) to one tank will not do likewise to the second one simultaneously. The fact that the new tank is empty in the wintertime may or may not be relevant to the analysis. (City of San Ramon)*

Discussion - Potential Drainage Impacts

Mitigation Measure WQ-1 on page 2-28 of the MND requires implementation of Best Management Practices for erosion and sediment control. Measure WQ-1 identifies methods to limit increases in sediment in storm water runoff, such as use of straw bales. To clarify that this measure will be implemented, the following mitigation measure is added to the MND:

> "**Measure WQ-4:** DERWA will place straw bales at the receiving storm drain to prevent debris from entering the City's storm drain system during construction."

The tank drainage infrastructure is designed to accommodate the possibility of overflow when filling the tank. The site drainage system is not designed to accept flow resulting from the unlikely event of a complete tank rupture. The likelihood of the accidental overflow condition

happening to both tanks simultaneously is extremely low since the tanks are filled by separate water sources and pumping systems. In addition, each tank will have altitude valves that will automatically shut off the inlet piping and prevent tanks overflow. Further analysis on the capacity of the existing energy dissipator to handle the DERWA Tank 1 overflow condition will be conducted. If needed, the existing energy dissipator will be modified or a separate energy dissipator will be installed to accommodate the accidental overflow from the Tank 1. The following mitigation measure is added to the MND:

> **"Measure WQ-5:** If further analysis determines it is necessary, DERWA will modify the existing energy dissipator, or install a new dissipator, to accommodate accidental overflow from Tank 1."

The external forces that could adversely affect the structural integrity of the tank relate to geologic and soils hazards, and are addressed on pp. 2-20 through 2-23 of the MND. The tank will either be a cylindrical concrete or steel tank as discussed in Section 1.3.2 of the Draft Mitigated Negative Declaration (MND). As stated on page 2-28 of the MND, complete and sudden failure of a welded steel reservoir due to an earthquake or other conditions is extremely unlikely (no modern steel reservoir is known to have failed in this manner). If the reservoir did rupture, the release of water would be gradual due to the character of the welded steel construction (tearing would be the mode of failure, rather than complete collapse). Complete and sudden failure of a concrete tank also is expected to be unlikely. The tank will be constructed on a drilled pier foundation. The MND identifies a number of additional measures to address seismic and slope stability hazards, including:

- Preparation of a design-level geotechnical report, and incorporation of recommendations from the report into project design;

- Design must comply with Uniform Building Code's grading and applicable seismic response parameters and requirements for seismic design criteria in Zone 4, or EBMUD's more stringent criteria; and

- Incorporation into the design measures to reduce the risk of slope failure, potentially including specifications for terracing and toe support, fill compaction, soil reinforcement, etc.

While no one can guarantee that the tanks will emerge from a major earthquake entirely free of damage, these measures ensure compliance with appropriate standards for design and reduce the risk of structural damage from a seismic event to an acceptable level.

Comments on Other Issues

- *Comments on Mitigation Measure AQ-1 (3.13.1) on Page 2-13, please add following to end of fifth bulleted item:*

  > *"Access road between Alcosta Boulevard and tank site shall be paved." (City of San Ramon)*

- *In Section VI (Geology and Soils) of the Environmental Checklist, Mitigation Measure GS-1 (page 2-22), please review design in accordance with the 1998 and 2001 Uniform Building Code. The City is currently using the 1998 version, however conformance with the 2001 version will take affect in November 2002. (City of San Ramon)*

- *In Section XI (Noise) of the Environmental Checklist, Mitigation Measure N-2 (page 2-34), revise to read:*

> *"DERWA shall limit construction activities to between the hours of 8:00 AM and 5:00 PM Monday through Friday. Work beyond 5:00 PM and on weekends shall require separate and prior approval of the City and shall only apply to emergency activity. These hours of construction are more stringent than the City's Noise Ordinance. All construction, delivery, and clean-up activities shall be confined to the above work hours. Construction activities shall be prohibited on holidays." (City of San Ramon)*

Discussion – Other Issues

Access Road. The access road that intersects Alcosta Boulevard is currently paved where it is adjacent to the residences. Mitigation Measure AQ-1, presented on pages 2-13 and 2-14 of the MND, requires preparation of a dust abatement program. Elements of the program, which include watering construction areas twice daily and discontinuing grading activity during high wind conditions, are presented in the measure. As stated on page 2-13, this mitigation measure meets current Bay Area Air Quality Management District requirements for dust control. Implementation of this measure would be sufficient to reduce dust impacts to less-than-significant levels.

Uniform Building Code. DERWA will require that the project comply with the currently effective form of the Uniform Building Code.

Noise. In response to discussions with City staff, DERWA will conduct public outreach prior to construction (see new mitigation measure, below). The public outreach will target residents along Pine Valley Court to inform them of the schedule for construction activities, the duration of construction near their homes, and proposed construction hours. DERWA will continue to keep the City Council informed of project activities during the construction period. DERWA will comply with construction hours specified in the encroachment permit issued by the City for construction in Alcosta Boulevard. DERWA otherwise proposes that the contractor(s) restrict the operation of construction equipment to the hours between 7:30 a.m. and 7:00 p.m. on weekdays as well as between 9:00 a.m. and 6:00 p.m. on weekends. No construction is allowed on holidays. As stated on page 2-33 of the MND, project construction would increase ambient noise levels and would have a temporary impact on nearby noise-sensitive residential areas. Implementation of Measures N-1 through N-4, presented on page 2-34 of the MND, as well as N-5 (below) would reduce potential noise impacts associated with construction activities to less-than-significant levels. These measures include limitation of construction hours and the use of controls on construction equipment. As stated on page 2-33 of the MND, Contra Costa County does not have a noise ordinance in place, but the Noise Element of the General Plan (Policy 11-8) states that "construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods." (Contra Costa County, 1996) The proposed construction hours are consistent with this policy. In response to the City's comment, the following measure is hereby added to page 2-34:

> **Measure N-5:** Prior to issuing the construction bid package, DERWA will engage in a public outreach process targeting the residents along Pine Valley Court. The purpose of the public outreach is to inform residents of the schedule for construction activities, the duration of construction near their homes, and proposed construction hours.

DERWA will also notify the residents two weeks prior to the start of construction. The notification will include the name and phone number of a staff person to be contacted regarding questions or concerns about construction activity.

Staff-Initiated Text Changes

Page 1-8, first paragraph, fourth and sixth sentences are revised to read as follows:

> "A pipeline up to ~~18~~24 inches in diameter~~, aligned along the southern edge of the existing PG&E power line easement that traverses the EBMUD property,~~ would connect the tank to a recycled water pipeline in Dougherty Road to the east. DERWA is currently working with Shappell-Land Department to evaluated alternative pipeline alignments east of Tank 1 that would satisfy their future development plans. DERWA is proposing to obtain a 20-foot-wide permanent easement. A second pipeline (up to 24~~18~~ inches in diameter) would connect the tank to a recycled water pipeline in Alcosta Boulevard to the west."

While the diameter of the proposed pipelines ~~has~~ may increase~~d~~ from 18 to 24 inches, the construction easement will remain the same. Therefore, these changes will not require any change to the impact analysis presented in the MND.

Page 2-20, first paragraph under Discussion, second sentence is revised to read as follows:

> "These faults are considered active by the ~~California Geological Survey~~ California Department of Mines and Geology and in accordance with the Alquist-Priolo Earthquake Fault Zoning Act of 1972."

Page 2-22, first paragraph, eighth sentence is revised to read as follows:

> The Diablo Clay and the underlying Orinda bedrock are considered expansive and have a moderate consolidation potential, which would require standard earthwork operations and/or proper foundation design (as indicated in the Project Description, unsuitable in situ material would be replaced with engineered fill as needed, and the tank would be supported by a drilled pier foundation).

Page 2-23, paragraph 2, is revised to read as follows:

> **Measure GS-3 (3.4.4):** With proper foundation design as described in the Project Description, standard engineering and controlled construction activities, the expansive nature of the project site soils are not expected to adversely affect construction or operation of the proposed project; therefore, no additional mitigation is required.

The following is inserted as the second paragraph under Item b) on page 2-27 of the MND:

> Exploratory geotechnical soil borings drilled at the Tank 1 site encountered shallow groundwater. The groundwater may be present in a saturated zone of soil overlying the more impermeable Orinda formation. The depth of the water table likely fluctuates with seasonal rainfall and flows in the direction relative to the surface topography. As stated in the Project Description, the tank will be constructed on a drilled pier foundation. The design will include standard features for draining the soils beneath and upslope of the tank (e.g., weep holes in the retaining wall if a steel tank is employed, or a lateral

drainage system to intercept groundwater upslope of a concrete tank constructed into the hillside).

The second paragraph on page 2-33 is revised as follows:

Pipeline installation would use standard open-cut trenching techniques for the majority of the alignments. The pipeline connecting to the DERWA recycled water main in Dougherty Road would extend across Alamo Creek. Most p~~P~~ipeline installation w~~e~~ould occur more than ~~as close as~~ 100 feet from the nearest residences; the westernmost 400 feet of the pipeline to Alcosta Boulevard would be adjacent to the tank access road and close to three homes on Pine Valley Court. At 50 feet, the noisiest construction equipment could generate noise at 96 dBA. The three residences on Pine Valley Court would experience even higher noise levels; trenching for pipe installation at that location would last less than two weeks. ~~At this distance, the noisiest construction equipment could be as high as 90 dBA.~~ Noise at these levels would be significantly above current levels, but would be temporary and relatively short in duration. The pace of construction would move noise sources on a daily basis as portions of the pipeline are completed. Construction of the pipeline would occur at an average rate of approximately 150 feet per day for open-trench segments and approximately 20 feet per day for the tunneling segment. For bore and jack construction under Alamo~~eda~~ Creek, if required, surrounding properties would be affected for a longer duration, depending on the length and depth of the construction.

The first mitigation measure on page 2-34 is revised as follows:

Measure N-1 (3.7.1): Adherence to local ordinances regulating hours of construction would minimize the potential for sleep disturbance and annoyance, because heavy construction would be limited to daytime hours. All equipment would be equipped with mufflers equal or superior in noise attenuation to those provided by manufacturer of the equipment. In addition, idling equipment would be shut off and temporary or portable acoustic barriers would be installed around stationary noise sources ~~receptors~~ that are located in proximity to potentially sensitive noise receptors.