Cemetery Area Water Pipeline Replacement Project

Draft Mitigated Negative Declaration

December 15, 2011

Lead agency:
City of Escondido
Planning Division
201 North Broadway
Escondido, CA 92025-2798

Prepared by:
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard, Suite 200
La Mesa, CA 91942

CITY OF ESCONDIDO
CEMETERY AREA WATER PIPELINE REPLACEMENT PROJECT

DRAFT MITIGATED NEGATIVE DECLARATION

TABLE OF CONTENTS

LIST OF APPENDICES

(Electronic copies bound in the back of this Draft Mitigated Negative Declaration)

DRAFT MITIGATED NEGATIVE DECLARATION

CITY OF ESCONDIDO
PLANNING DIVISION
201 NORTH BROADWAY
ESCONDIDO, CA 92025-2798
(760) 839-4671

MITIGATED NEGATIVE DECLARATION

ENV 10-0004
Initial Study Part II

Case Number: ENV 10-0004
Date Issued: December 15, 2011
Public Review Period: December 15, 2011 – January 17, 2012

Location: The approximately 32-acre project area is located in the eastern portion of the City's water service area, and is generally bound by Reed Road on the north, Cloverdale Road on the east, Mountain View Drive on the south, and Whispering Highlands Drive on the west. Oak Hill Memorial Park is included within the project area.

Addresses: Primary Addresses and Assessor's Parcel Number (APN): 2640 Glen Ridge Road and 2655 Glen Ridge Road; APN 240-180-03.

Additional affected addresses and APNs can be found in Appendix A to this document.

Project Description: The project includes the abandonment of approximately 17,500 linear feet (lf) of existing potable water pipeline and construction of approximately 12,600 lf of new replacement potable water transmission and distribution pipeline, as well as associated service laterals and mains. In addition to the potable water pipelines, an approximately 2,545-foot-long, 20-inch-diameter recycled water pipeline would be constructed in the western portion of the project area, generally parallel with one portion of the potable water pipeline. Although expected to be installed concurrent with the rest of the proposed project, the recycled water line would not be activated until some point in the future. The project also includes construction of an approximately 10-by-20-foot pressure-reducing station on a similarly sized concrete pad along the potable water pipeline in the southeastern portion of the project area.

Applicant: Escondido Utilities Department

An Initial Study has been prepared to assess this project as required by the California Environmental Quality Act (CEQA) and State CEQA Guidelines, and the Ordinances and Regulations of the City of Escondido. The Initial Study is on file at the City of Escondido Planning Division.

Findings: The findings of this review are that the Initial Study identified Biological Resources and Cultural Resources impacts that may be potentially significant, but mitigation measures would reduce potential impacts to less-than-significant levels.

SUPPLEMENTAL COMMENTS

CITY OF ESCONDIDO
PLANNING DIVISION
201 NORTH BROADWAY
ESCONDIDO, CA 92025-2798
(760) 839-4671

MITIGATED NEGATIVE DECLARATION

(Case No.: ENV 10-0004)

ENVIRONMENTAL CHECKLIST
SUPPLEMENTAL COMMENTS

INTRODUCTION

This Mitigated Negative Declaration (MND) assesses the environmental effects of the proposed project involving the abandonment of approximately 17,500 linear feet (lf) of existing potable water pipeline and construction of approximately 12,600 lf of new replacement potable water transmission and distribution pipeline in the eastern portion of the City of Escondido's (City's) service area (Figure 1, Regional Location Map). The project also would include approximately 2,545 lf of recycled water pipeline in the western portion of the project area, and a small pressure-reducing station located along the potable water pipeline on the eastern end of the project area. The approximately 32-acre project area is generally bound by Reed Road on the north, Cloverdale Road on the east, Mountain View Drive on the south and Whispering Highlands Drive on the west. Oak Hill Memorial Park (Cemetery) is located within the project area (Figure 2, Project Location Map, and Figure 3, Aerial Photograph).

An Initial Study Environmental Checklist was prepared for this project and is included as a separate attachment to the Supplemental Comments within this report. The information contained in the Initial Study Environmental Checklist and the Supplemental Comments will be used by the City to determine potential impacts associated with the proposed development.

The detailed Supplemental Comments included in this document identify and evaluate physical impacts to the environment associated with developing or implementing the proposed project based on preliminary review of a variety of environmental factors identified in the attached Environmental Checklist. In analyzing the project, it has been determined that potentially significant impacts related to biological resources and cultural resources would occur. Based on information and documentation incorporated in the analysis, it has been concluded that this Initial Study warrants issuing a Mitigated Negative Declaration (MND). The MND acknowledges that certain aspects of the project would cause significant impact(s) on the environment but those impacts would be reduced to an acceptable level by incorporating Mitigation Measures. The City is both the project proponent and the California Environmental Quality Act (CEQA) lead agency for the project.

As mandated by State CEQA Guidelines Section 15105, affected public agencies and the interested public may submit comments on the MND in writing before the end of the 30-day public review period starting on December 15, 2011 and ending on January 17, 2012. Written comments on this environmental document shall be submitted to the following address by 5:00 p.m. on January 17, 2012. Following the close of the public review comment period, the City will consider this MND and all received comments in determining whether to approve this project.

City of Escondido
Planning Division
201 North Broadway
Escondido, CA 92025-2798
Contact: Bill Martin, Principal Planner
Telephone: (760) 839-4557
Fax: (760) 839-4313
e-mail: bmartin@escondido.org

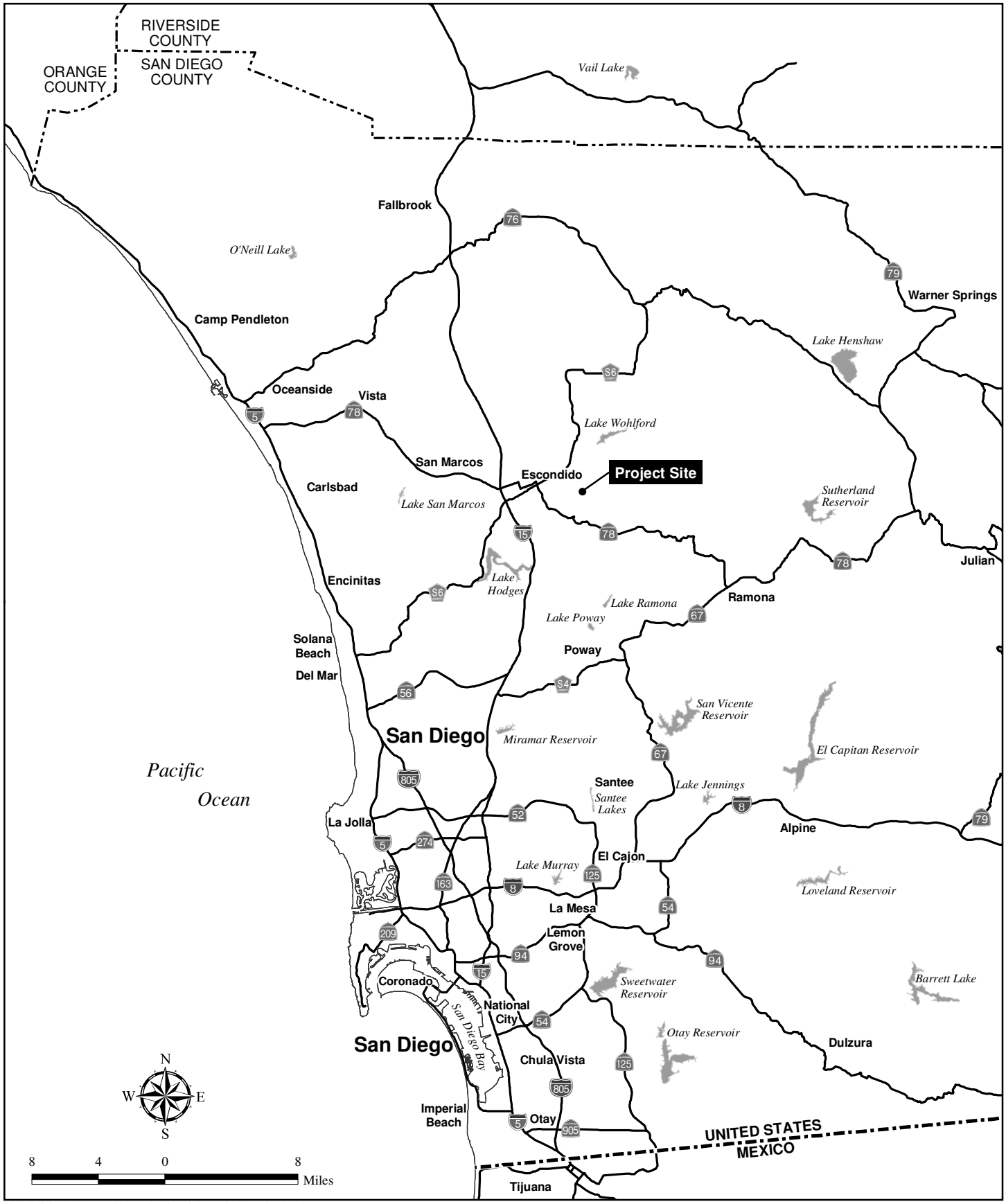
A hard copy of this document and any associated plans and/or documentation are available for review during normal hours of operation for the duration of the public review period at the City of Escondido Planning Division.

DETAILED PROJECT DESCRIPTION/LOCATION

The project area covers approximately 32 acres within the East Grove, Reed, and Hogback pressure zones in the eastern portion of the City's Utilities Department, Water Division (Water Division) service area. Generally bound by Reed Road on the north, Cloverdale Road on the east, Mountain View Drive on the south and Whispering Highlands Drive on the west, the semi-rural project area includes land both within the City and unincorporated County of San Diego (County).

The proposed project consists of the abandonment of approximately 17,500 lf (3.3 miles) of existing 12- to 24-inch diameter concrete-lined steel potable water pipeline within the three noted pressure zones (see Figure 3). The pipelines would be replaced with approximately 12,600 lf (2.4 miles) of new pipeline generally ranging between 12 and 24 inches in diameter and comprising steel, ductile iron, polyvinylchloride (PVC), or high-density polyethylene (HDPE) pipe material. Numerous smaller PVC or copper pipes would be installed as service laterals. The existing pipelines would stay in service throughout the duration of construction, and would be capped and abandoned in place following implementation of the proposed replacement pipelines, or removed where necessary to provide room for the replacement pipe segments. The replacement pipelines would be divided into four proposed alignments labeled Ra, Rb, Ha, and Hb (see Figure 3). The proposed alignments intersect with approximately 57 private parcels, 47 of which are residential (refer to the APN list in Appendix A). There are numerous other parcels listed in Appendix A which, although not intersecting with the alignments, are adjacent to them.

The proposed Ra alignment extends for approximately 7,760 lf in the central portion of the project area, through both developed and undeveloped land associated with the Cemetery, as



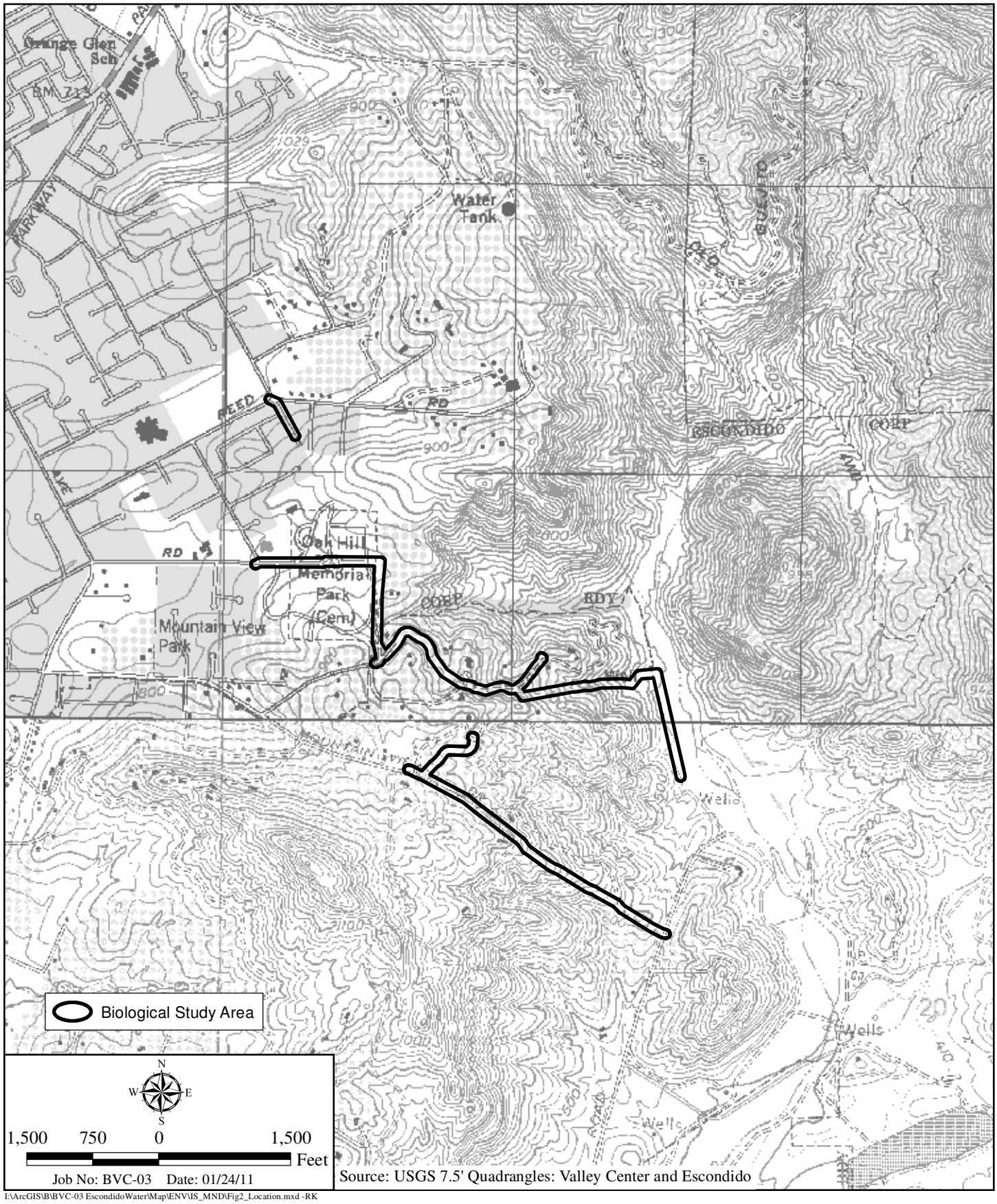
I:\ArcGIS\B\BVC-03 EscondidoWater\Map\ENV\IS_MND\Fig1_Regional.mxd

Regional Location Map

CEMETERY AREA WATER PIPELINE REPLACEMENT PROJECT

HELIX

Figure 1



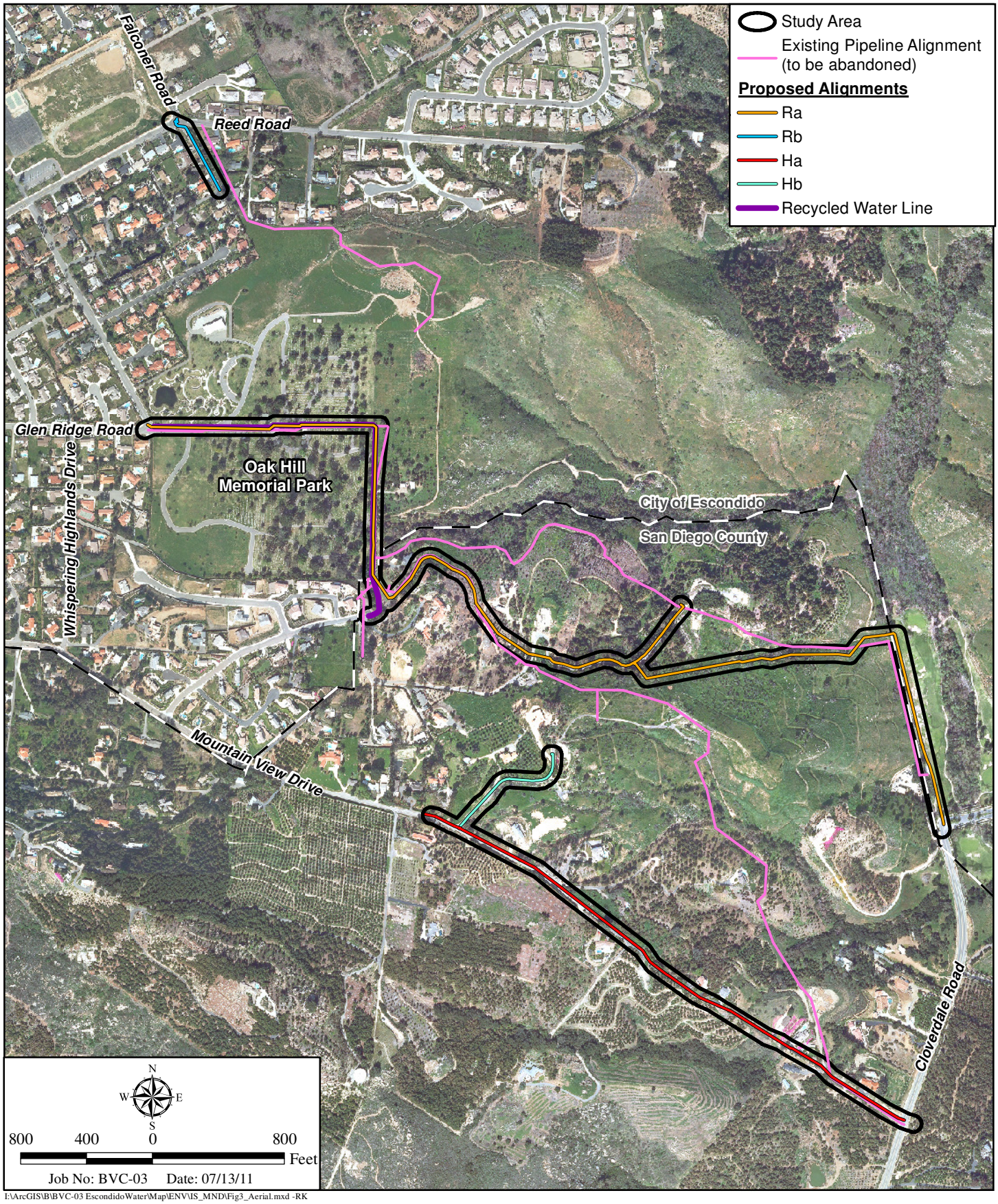
I:\ArcGIS\B\BVC-03 EscondidoWater\Map\ENV\IS_MND\Fig2_Location.mxd -RK

Project Location Map

CEMETERY AREA WATER PIPELINE REPLACEMENT PROJECT

HELIX

Figure 2



I:\ArcGIS\B\BVC-03 EscondidoWater\Map\ENV\IS_MND\Fig3_Aerial.mxd -RK

Aerial Photograph

CEMETERY AREA WATER PIPELINE REPLACEMENT PROJECT

HELIX

Figure 3

well as through agricultural areas and areas supporting native and non-native vegetation. The Ra alignment extends eastward from the Cemetery entrance at Glen Ridge Road and Moody Drive to bisect the Cemetery; turns south through undeveloped area recently purchased by the North County Cemetery District (Cemetery District) for expansion of the Cemetery; winds to the north before heading southeast and east alongside large-lot single-family residences and avocado and citrus groves; and the final leg of the Ra alignment extends south along Cloverdale Road before terminating just outside the intersection with Old Ranch Road. Where it would bisect the Cemetery, the proposed Ra alignment would avoid disturbing gravesites by closely following the alignment of the existing waterline that currently bisects the Cemetery.

The proposed Rb alignment extends for approximately 550 lf through medium-density, single-family residential development in the northwest portion of the study area. The Rb alignment extends from Reed Road just west of Falconer Road, jogs southeast to Falconer Road, and then follows a straight line south/southeast along Falconer to just south of La Colina Drive. The Rb alignment includes only developed land.

The proposed Ha alignment extends for approximately 3,470 lf in a southeasterly direction along Mountain View Drive. Forming the southern edge of the project area, the Ha alignment extends along the paved portions of Mountain View Drive, and along an existing unpaved access road between the two paved portions of the road, to its terminus at the intersection with Cloverdale Road. At approximately 824 lf, the proposed Hb alignment would extend through large-lot residential (developed), agricultural (grove), and native and non-native vegetated areas in the southwest portion of the project area. As shown on Figure 3, Hb extends from Mountain View Drive, where it intersects with the west end of the proposed Ha alignment, to the northeast along an existing dirt road; it would then jog east and then north again before terminating midway between the proposed Ra and Ha alignments.

The replacement pipelines would be installed within these alignments at an average rate of approximately 50 feet per day. The project comprises a total of approximately 12,600 lf (2.4 miles) of replacement potable water transmission and distribution lines, generally ranging from 12 to 24 inches in diameter; a single, approximately 5-foot-long section of 30-inch-diameter pipe would provide a connection point between 2 adjoining pipes near the Cemetery entrance. The replacement pipeline segments would be constructed of steel, ductile iron, PVC, or HDPE pipe material. Numerous smaller PVC or copper pipes would be installed as service laterals off the main lines. New meters also would be constructed and, in some cases, existing meters would be relocated as part of the project. The proposed lateral lines and new meters would be constructed within existing disturbed driveways or private roadways and existing meters would be relocated from private properties to the public right-of-way.

In addition to the proposed potable water lines, the project would include construction of an approximately 2,545-foot-long, 20-inch-diameter HDPE recycled water pipeline. The recycled water line alignment would parallel the Ra potable water alignment for the first approximately 2,250 feet, after which it would deviate from the Ra alignment for approximately 295 feet before terminating within the Canyon Crest Drive right of way south of the Cemetery. Specifically, the recycled water alignment would start at the beginning (west end) of the Ra alignment at the entrance to the Cemetery. From there it would traverse the Cemetery in a due east direction,

then turn due south and travel along the east side of the Cemetery. Near the southeast corner of the Cemetery, the Ra alignment shifts from a due south orientation to a more southeast orientation; where this directional shift occurs in the Ra alignment, the recycled water alignment would exit the Ra alignment and continue in a southerly direction until it nears Canyon Crest Drive. At that point, the recycled water alignment would turn to the west briefly before terminating at the east end of Canyon Crest Drive. Unlike the proposed potable water lines which would be put into service immediately, the recycled water pipeline would be installed at the time of the potable lines, but not activated until some point in the future.

A pressure-reducing station in the form of an approximately 10-by-20-foot structure on a similarly sized concrete pad also would be constructed as a part of the potable water pipeline component of the proposed project. The proposed structure would be located along Mountain View Drive in the southeast corner of the project area, east of the eastern terminus of the described Ha alignment and near the intersection with Cloverdale Road (see Figure 3). The pressure-reducing station would rest on a concrete slab and have reinforced concrete retaining walls on three sides. The enclosure would include full-width chain-link access gates on the fourth side and a lightweight, removable roof which also would comprise chain-link fencing.

Due to the presence of hard granitic rock along the proposed alignments, it is likely that blasting would be necessary to remove these rocks during excavation/trenching activities in some areas. Possible methods of granitic rock removal may include blasting and/or use of a chemical rock-splitting agent. If blasting were to occur, hydraulic rock drills would prepare holes for the blasting charges. Depending upon the size of rocks created by blasting, additional breaking could be required prior to hauling material off site. Should blasting be deemed the appropriate rock-breaking method, a blasting plan would be developed as project design progresses.

If blasting at the project site is deemed unsafe or in unacceptable proximity to surrounding residences, a chemical rock-splitting agent may be used. Chemical rock-splitting would involve a non-explosive grout with expansive properties that can be strategically utilized to split rock gradually. This process would first require the drilling of holes across the rock surface. An engineer and/or specialist would need to determine the depth, diameter, and location of the holes. The chemical demolition agent (grout) would then be applied into the drilled holes and left to expand, splitting the rock in the process. The excavated rock material could then be transported off site for further size reduction.

The purpose of the proposed project is to replace aging potable water transmission and distribution infrastructure, increase water delivery capacity and pressure to the immediate project area, maintain a reliable water supply and distribution system, and prepare for the future delivery of recycled water in the vicinity. The project also would provide the added benefit of abandoning those existing water lines that currently bisect private lots and replacing them with new lines that, in most instances, would be constructed along lot boundary lines and/or within public rights-of-way. The primary objective of the increase in pressure or capacity that could result from the proposed project is to improve the flow of water to existing property owners during a wildfire-related emergency. The proposed project would not include any other permanent improvements, such as lighting, landscaping, signage, parking areas, or recreational facilities.

PAST PUBLIC MEETINGS:

In the beginning stages of project development over the last two years, publicly noticed workshops were held to discuss the proposed project and solicit community input. Workshops were held on July 16 and July 23, 2009.

ANTICIPATED PUBLIC MEETINGS/HEARINGS:

It is anticipated that the City Council will consider adoption of the Mitigated Negative Declaration on February 1, 2012. Please contact the City of Escondido Planning Division to confirm that date.

PROJECT ENVIRONMENTAL SETTING:

The project area includes medium- and low-density, semi-rural uses within the boundaries of both the City and the unincorporated County. The northern portion of the project area is located in areas zoned by the City as Residential Estates (R-E-20) and Residential Agriculture (R-A-5), and Specific Plan (S-P). The southern portion of the project area, within the unincorporated County, is zoned for Limited Agricultural Use (A70). The corresponding City General Plan land use designations are Estate II (E2) and Rural II (R2). The corresponding County General Plan land use designation is Semi-rural Residential (SR-1 and SR-2). Existing land uses on the properties adjacent to and bisected by the project's proposed alignments include single-family residential on larger lots; the Cemetery; public and private (paved and unpaved) roads and drives; avocado and citrus groves; and developed and undeveloped land not affiliated with the Cemetery. The proposed Ra alignment and recycled water alignment would extend through land developed with the existing Cemetery, as well as undeveloped land immediately to the east that is owned by the Cemetery District and likely would be the site of development associated with future Cemetery expansion.

The City and County zoning and land uses adjacent to the proposed project area are as follows:

North: City: R-1-10 zone (Single-family Residential—10,000-square foot [SF] minimum lot size), and R-E-20 zone (Residential Estates—20,000-SF minimum lot size). Single-family and estate residences with varying lot sizes.

South: County: A70 zone (Limited Agricultural Use with residences, agricultural crop production, and limited agricultural product processing). Single-family and estate residences with large lot sizes and limited agricultural uses.

East: City: R-E-20 zone, R-A-5 zone (Residential Agriculture with a 5-acre minimum lot size), and S-P zone (corresponds with the General Plan Specific Planning Area designation). Estate and agricultural residences with varying lot sizes; specific planning area.

West: County: A70 zone; City: R-E-20 zone. Single-family and estate residences with large lot sizes and limited agricultural uses.

I. AGRICULTURE AND FORESTRY RESOURCES

Significance Criteria and Impact Analysis

In determining whether impacts to agricultural resources are significant environmental effects, the City has referred to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, the City has referred to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. The effects of a project on agricultural and forestry resources are considered significant if the proposed project would:

a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;*
b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract;*
c. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));*
d. *Result in the loss of forest land or conversion of forest land to non-forest use; or*
e. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.*

The proposed project is located in an area characterized by rural residential and agricultural land uses. According to the California Division of Land Resources Protection, some of the land traversed by the proposed pipeline alignments is designated as Unique Farmland and Farmland of Statewide Importance (2006). The proposed project involves upgrades to an existing potable water delivery system and incorporation of a recycled water pipeline for future use; it would not convert Farmland to non-agricultural use, nor does it involve changes in the existing environment that would result in conversion of adjacent Farmland to non-agricultural use. None of the land traversed by the proposed pipeline alignments is zoned as forest land or timberland. Accordingly, no such land would be lost or converted by the proposed pipeline improvement project. Therefore, no conflicts with existing zoning for agricultural use, forest land or timberland, or impacts to Farmland, agricultural activity, forest land or timberland would occur as a result of project implementation.

II. AIR QUALITY

Significance Criteria and Impact Analysis

Where applicable, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Impacts would be significant if the project:

a. *Conflicts with or obstructs implementation of the applicable air quality plan;*
b. *Violates any air quality standard or contributes substantially to an existing or projected air quality violation;*
c. *Results in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*
d. *Exposes sensitive receptors to substantial pollutant concentrations;*
e. *Creates objectionable odors affecting a substantial number of people;*

Air Quality Plans and Standards

The proposed pipeline corridor is within the San Diego Air Basin (SDAB). The San Diego County Air Pollution Control District (SDAPCD) is the local agency responsible for the administration and enforcement of air quality regulations for San Diego County, including the City of Escondido. The SDAPCD regulates most air pollutant sources, except for motor vehicles, marine vessels, aircrafts, and construction equipment, which are regulated by the California Air Resources Board (CARB) or the U.S. Environmental Protection Agency (EPA). State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by the SDAPCD.

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, and most recently in April 2009. The RAQS outlines the SDAPCD's plans and control measures designed to attain the state air quality standards for ozone (O_3). The SDAPCD has also developed the air basin's input to the State Implementation Plan (SIP), which is required under the federal Clean Air Act for areas that are out of attainment of air quality standards.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of the County's General Plan. As such, projects that propose development that is consistent with the growth anticipated by the general

plans would be consistent with the RAQS. In the event that a project would propose development which is less dense than anticipated within the general plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the general plan and SANDAG's growth projections, the project might be in conflict with the RAQS and SIP, and might have a potentially significant impact on air quality.

The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The SIP also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the National Ambient Air Quality Standards (NAAQS) for ozone.

The proposed project would result in pipeline improvements to an existing potable water system and incorporation of a recycled water pipeline for future use. As discussed below under Population and Housing (Section XII), the proposed project would not directly or indirectly induce population growth. Because the project does not include any growth-generating components, it would be consistent with projections contained in the County of San Diego's General Plan (which also includes the City of Escondido's General Plan), and thus, consistent with SANDAG and RAQS forecasts. Because the proposed project is consistent with the local general plan and the regional growth forecast, it would be considered consistent with the region's RAQS. Accordingly, project-related emissions are accounted for in the RAQS, which was created to bring the SDAB into attainment for ozone. No impact would occur because the project would not conflict with applicable air quality plans.

During project construction, which would entail minor construction activities associated with installation of the pipelines and pressure-reducing station, emissions associated with fugitive dust and exhaust from construction equipment would be generated. Daily emissions would be relatively low because only a limited number of truck trips (e.g., up to seven truck trips per day) would be required to haul construction materials and soil to and from the site, and only a few pieces of construction equipment (e.g., backhoe, crane, excavator, and loader) would be active at any given time. The combined length of the pipelines would be approximately 2.9 linear miles, including the recycled water pipeline which would be installed parallel to a portion of the potable Ra alignment. Up to 30 feet wide in some areas and as narrow as 10 feet wide in others, the construction corridor generally would range between 20 and 30 feet in width. Project construction would employ dust control measures (i.e., watering twice daily) and would not result in emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, nor result in a cumulatively considerable net increase of fine particulate matter (PM), including PM smaller than 10 microns in diameter (PM_{10}) or PM smaller than 2.5 microns in diameter ($PM_{2.5}$).

A less-than-significant impact would occur with incorporation of the following control measures, which are required under CARB and SDAPCD regulations. The control measures proposed to minimize air quality impacts generated during project construction are:

AQ-1 Off-road construction equipment engines shall utilize a maximum of 75 percent (by horsepower) CARB/EPA Certification Tier 2 and a minimum of 25 percent (by horsepower) Tier 3 or better engines, or other equivalent methods approved by the CARB, to reduce air emissions.

AQ-2 All off-road construction equipment shall be equipped with CARB Verified Level III catalysts or other equivalent methods approved by the CARB, to reduce PM and VOC emissions at least 85 percent.

AQ-3 The project applicant shall prepare and implement a Fugitive Dust Plan per SDAPCD Rule 55 that shall include the following or other measures with the equivalent level of reduction:

- Water shall be applied every three hours to disturbed areas within a construction site.
- Minimum soil moisture of 12 percent during earthmoving activities by use of a moveable sprinkler system or a water truck shall be required. Moisture content can be verified by lab sample or moisture probe.
- Ground cover shall be replaced in disturbed areas as quickly as possible.
- All trucks hauling dirt, sand, soil, or other loose materials shall be tarped with a fabric cover and maintain a freeboard height of 12 inches.
- The maximum speed on unpaved roads shall be limited to 25 miles per hour.
- Chemical dust suppressant shall be applied annually to unpaved parking areas.
- Construction of three-sided enclosures with 50-percent porosity around storage piles shall be required.
- Storage piles shall be watered by hand or cover applied when wind events are declared.
- Chemical soil stabilizers shall be applied on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Vegetative ground cover shall be planted in disturbed areas as soon as possible.

AQ-4 All construction equipment/vehicles shall be maintained properly as per the manufacturer's recommendations.

AQ-5 Truck idling shall be minimized to no more than five minutes.

In addition, construction emissions would be temporary and localized within the immediate project vicinity. Therefore, project construction emissions would result in a less-than-significant impact to air quality.

No substantial operational emissions would be generated from the proposed project. The pressure-reducing station would comprise a series of valves and springs to control the flow of water. Other than very limited maintenance-related vehicle trips to the pressure-reducing station, which would result in minor, non-significant vehicular emissions, there would be no emissions associated with the pressure reducing station and impacts would be less than significant. Because the future use of recycled water would reduce the amount of potable water transmitted to the area — and, therefore, the associated transport, pumping, and water treatment emissions that could occur — future activation of the proposed recycled water pipeline could contribute to a minor reduction in air emissions associated with project operations. No control or mitigation measures are required.

Criteria Pollutants

The approach for assessing cumulative impacts is based on the RAQS forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. As discussed above, the proposed project would be consistent with the RAQS, which is intended to bring the SDAB into attainment for all criteria pollutants. In addition, and as discussed above, daily emissions would be low and temporary in duration. Accordingly, cumulative impacts would be less than significant.

Sensitive Receptors

Sensitive receptors along the pipeline corridor include single-family residences. Cemetery and agricultural areas are not considered sensitive receptors for air quality. Construction activities would generate diesel emissions from construction equipment, and diesel exhaust PM is known to the state of California as a carcinogenic compound. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which is defined in the California Air Pollution Control Officers' Association (CAPCOA) Air Toxics "Hot Spots" Program Risk Assessment Guidelines as 24 hours per day, 7 days per week, 365 days per year, for 70 years. Diesel exhaust PM would be emitted from heavy equipment used during the approximately nine-month construction process assumed for the proposed project. Because PM from diesel exhaust is considered carcinogenic, long-term exposure to such emissions have the potential to result in adverse health impacts. Due to the short-term nature of project construction and the approximately 50-foot per day rate of pipeline installation, exposure of sensitive receptors (e.g., surrounding residents) to diesel exhaust emissions during construction would not be significant. The relatively short duration of pipeline construction would not contribute to excessive cancer risks on sensitive receptors. Accordingly, related impacts would be less than significant.

Odors

The proposed project would not generate substantial odors. Diesel exhaust from construction vehicles may create odors noticeable at residences, cemetery, and the agricultural areas near the pipeline corridor; however, the diesel exhaust odors would be temporary and minor, as described above. The installation of underground potable and recycled water pipelines would not generate objectionable odors on either a short- or long-term basis, and impacts would be less than significant.

III. BIOLOGICAL RESOURCES

Significance Criteria and Impact Analysis

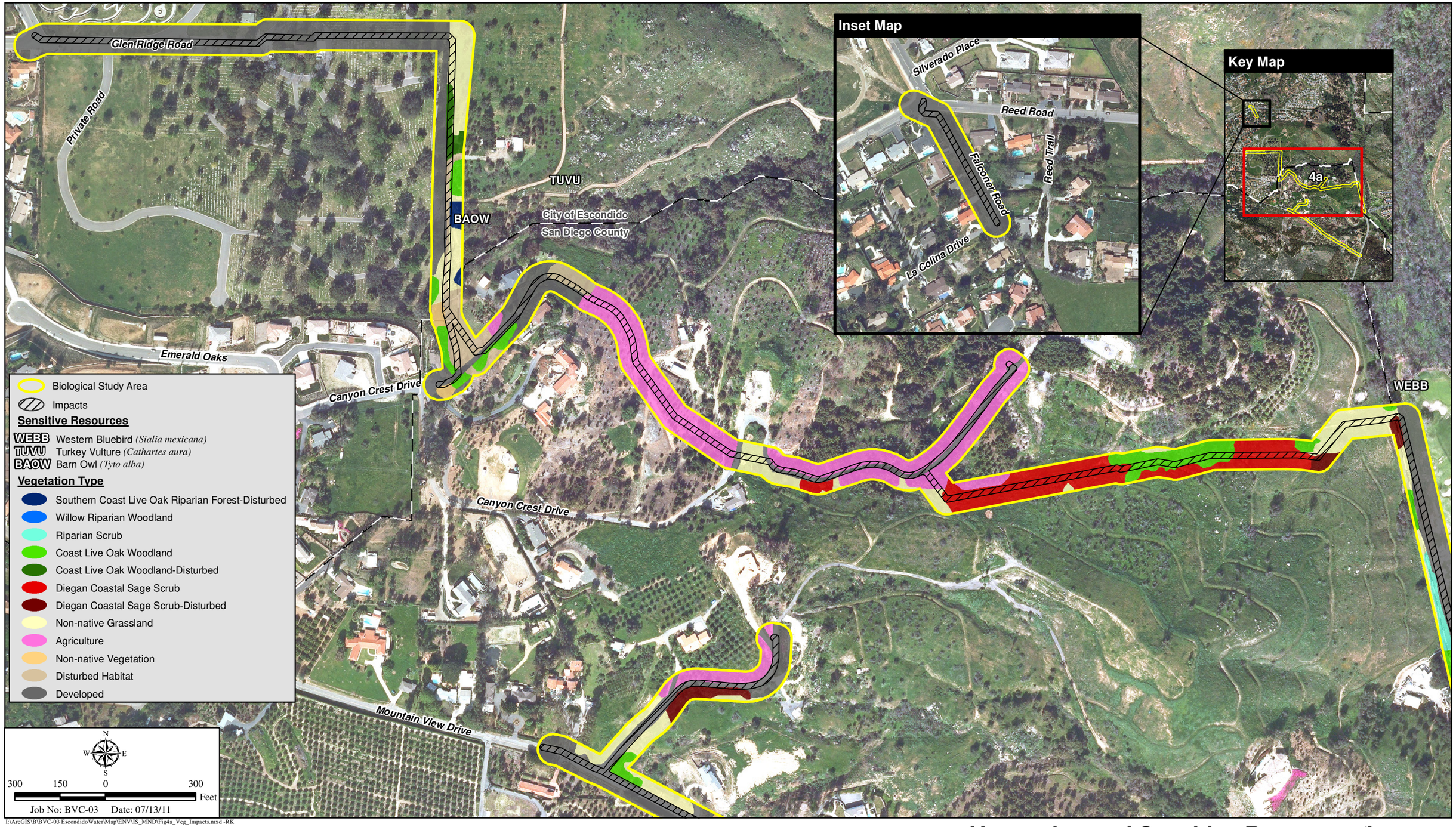
The effects of a project on biological resources are considered to be significant if the proposed project would:

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 (CDFG) or United States Fish and Wildlife Service (USFWS);*
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 CDFG or USFWS;*
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;*

Vegetation Communities and Sensitive Plant and Animal Species

Vegetation mapping, a general biological survey, and a jurisdictional delineation were conducted in January and March 2010 by HELIX Environmental Planning, Inc, (HELIX) within an approximately 29.7-acre biological study area (BSA), which includes the linear project footprint plus an additional (generally approximately 30-foot-wide) buffer along either side of the footprint (Figures 4a and 4b, Vegetation and Sensitive Resources/Impacts). A Biological Technical Report (BTR) was prepared (HELIX 2011), and the report is summarized herein and included as Appendix B to this Initial Study. The BSA is located within the City and on unincorporated land in the County. The portion of the BSA within the City is included in the Public Review Draft Escondido Subarea Plan (Ogden and CBI 2001) for the Multiple Habitat Conservation Program (MHCP). The unincorporated lands of the County within the BSA are located within the Metro-Lakeside-Jamul Segment of the County's Multiple Species Conservation Program (MSCP; County 1997).

Vegetation Communities. Based on the analysis in the BTR, implementation of the proposed project would result in direct impacts to a total of 1.3 acres of sensitive vegetation communities, including 0.3 acre of coast live oak woodland (including disturbed), 0.6 acre of Diegan coastal sage scrub (including disturbed), and 0.4 acre of non-native grassland. It should be noted that all



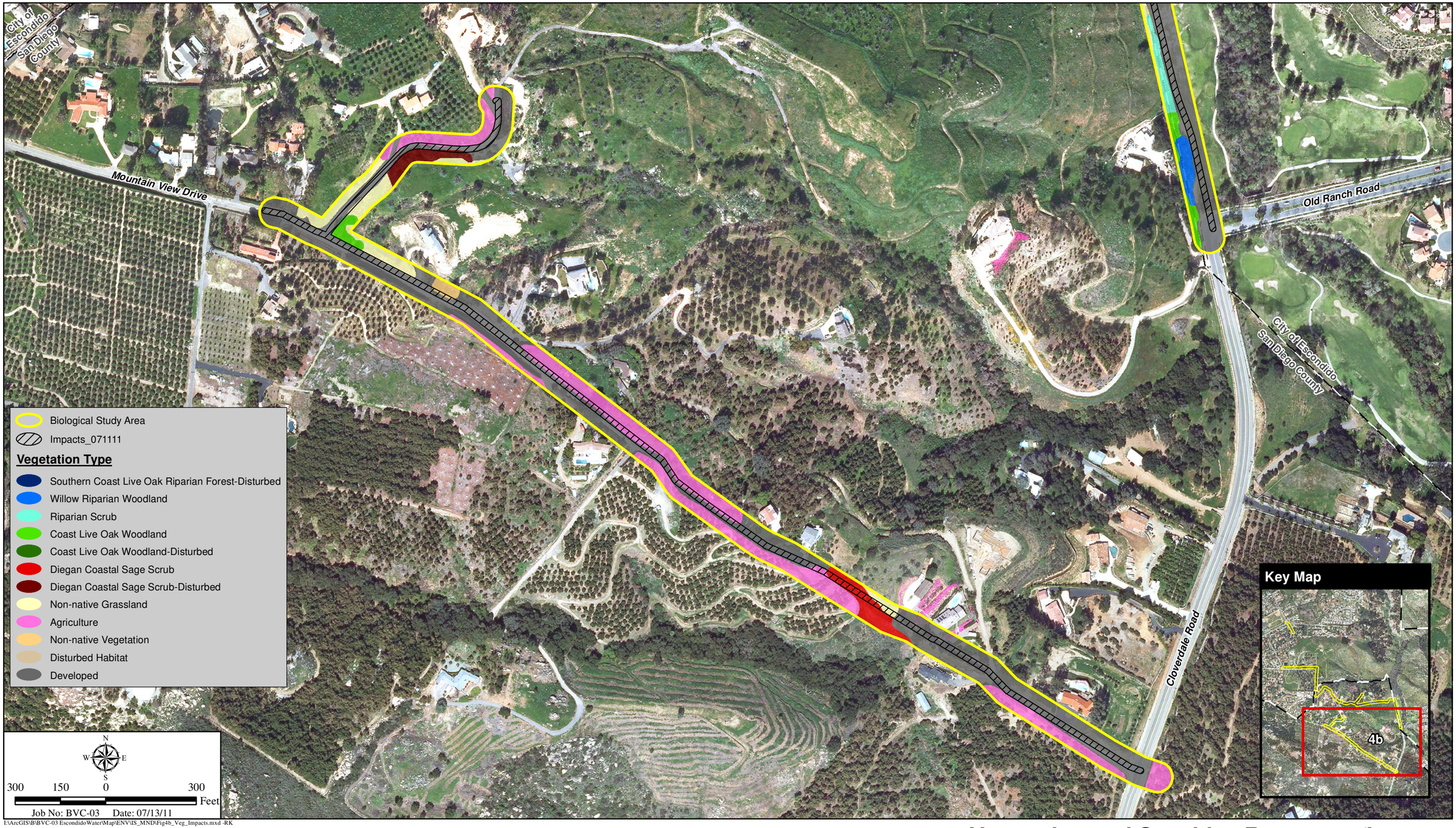
E:\ArcGIS\B\BVC-03 EscondidoWater\Map\ENV\IS_MND\Fig4a_Veg_Impacts.mxd -RK

Vegetation and Sensitive Resources/Impacts

CEMETERY AREA WATER PIPELINE REPLACEMENT PROJECT

HELIX

Figure 4a



I:\ArcGIS\B\BVC-03 EscondidoWater\Map\ENV\IS_MND\Fig4b_Veg_Impacts.mxd -RK

Vegetation and Sensitive Resources/Impacts

CEMETERY AREA WATER PIPELINE REPLACEMENT PROJECT

HELIX

Figure 4b

impacts to Diegan coastal sage scrub would occur within the unincorporated County; no impacts to this sensitive habitat would occur within the City.

Impacts to 4.7 acres of non-sensitive communities would include direct impacts to 0.7 acre of agriculture, 0.4 acre of disturbed habitat, and 3.6 acres of developed land. Impacts to sensitive vegetation communities may be considered significant while impacts to non-sensitive vegetation communities generally are not considered significant.

Critical habitat consists of areas of land that the USFWS has formally designated as being necessary for endangered or threatened species to recover. No critical habitat for any species occurs within the BSA.

Sensitive Plant Species. As defined by the California Native Plant Society (CNPS), sensitive plant species are those considered unusual or limited in that they are: (1) only found in the San Diego region; (2) a local representative of a species or association of species not otherwise found in the region; or (3) severely depleted within their ranges or within the region.

The Draft Escondido Subarea Plan identifies major populations and critical locations of plant species within its boundaries. The Draft Escondido Subarea Plan does not identify any major plant populations or critical plant locations within the BSA.

The County's 1997 MSCP Subarea Plan includes a list of narrow endemic plant species which are protected under the MSCP. No County Rare, Endemic Species were observed within the BSA, and the BSA is not known to support a core population of any County Rare, Endemic Species. In addition, no sensitive plant species included in the Draft Escondido Subarea Plan or listed as sensitive by the CNPS were observed within the BSA during surveys. As shown in Table 3 of the project BTR (HELIX 2010), there are three sensitive plant species with potential to occur in the BSA; however, all three have a low potential to occur. Accordingly, no impacts to sensitive plant species are anticipated.

Sensitive Animal Species. No federal or state listed endangered or threatened animal species were observed or detected within the BSA. Although implementation of the proposed project would impact Diegan coastal sage scrub within the unincorporated County, a vegetation community that is typically used by the federally listed as threatened species coastal California gnatcatcher (*Polioptila californica californica*), this species was not observed within the BSA during site visits. While its potential to occur within the BSA is low given the small amount of marginal habitat along edges of Diegan coastal sage scrub within the linear BSA (HELIX 2010), species-specific surveys were not conducted, so it is assumed that the species could be present. While impacts to gnatcatchers could occur and would be significant if nesting birds are present during vegetation removal and trenching activities, no impacts to other listed species would occur.

No County Rare, Endemic Species were observed within the BSA, and the BSA is not known to support a core population of any County Rare, Endemic Species. Three animal species considered sensitive by the County (turkey vulture [*Cathartes aura*], western bluebird [*Sialia Mexicana*], and barn owl [*Tyto alba*]) were observed flying near the BSA or overhead during site

visits. While no direct impacts to these three species are anticipated, indirect impacts could occur through habitat loss. Removal of any suitable habitat during the breeding seasons for coastal California gnatcatcher (February 15 through August 31) or tree-nesting raptors (February 1 through September 15) could potentially be considered significant. The Migratory Bird Treaty Act (MBTA) is generally protective of migratory bird species that are native to the U.S. or its territories and, in common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 1 to July 31). As such, vegetation removal and trenching activities between February 1 and July 30 would result in a significant impact to any species covered under the MBTA (refer to Appendix B for details). Impacts to avian species covered under the MBTA would be significant.

Wetlands

No impacts to Corps or CDFG jurisdictional areas or County RPO wetlands are anticipated (refer to Figures 5a, 5b, 6a, 6b, 7a, and 7b in the BTR). In addition, orange blaze construction fencing would be installed adjacent to all jurisdictional areas and County RPO wetlands to prevent potential errant construction impacts from occurring to these sensitive areas (refer to BTR Figures 6a, 6b, 8a, and 8b).

Indirect Impacts

Indirect impacts to biological resources consist of secondary effects of a project such as edge effects, introduction of non-native species, or increased lighting. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent. Although biological resources may not initially be impacted directly, over time they may be affected indirectly due to the relative proximity of development. Potential indirect impacts from project construction are discussed below.

Water Quality: Water quality in riparian areas can be adversely affected by potential surface runoff and sedimentation during construction. The use of petroleum products such as fuels, oils, and/or lubricants, and erosion of cleared land during construction could potentially contaminate surface water on site and/or downstream. Temporarily diminished water quality could adversely affect vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources.

During construction, project design measures would be implemented to control erosion, sedimentation, and pollution that could impact water resources and indirectly impact dependent biological resources, within the project impact area and downstream off site. The proposed project would comply with Section 33 of Article 55 (Grading and Erosion Control) of the City's Municipal Code, which requires erosion control measures for construction areas within the City. The project also would comply with Sections 87.414 and 87.417 of Division 7 (Excavation and Grading) of the San Diego County Zoning and Land Use Regulations, which require erosion control measures for construction areas within the County. Prior to the commencement of grading, a Notice of Intent would be filed with the Regional Water Quality Control Board (RWQCB) for a National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; NPDES No. CAS000002, State Water Resources Control Board

[SWRCB] Order 2009-0009-DWQ). Specific NPDES Construction General Permit requirements include implementation of an approved Storm Water Pollution Prevention Plan (SWPPP), which require best management practices (BMPs) for construction-related water quality concerns including erosion/sediment control, hazardous material use/storage, debris generation, and disposal of extracted groundwater. The SWPPP would fulfill the requirements of NPDES No. CAS000002, SWRCB Order 2009-0009-DWQ by using BMPs to eliminate and/or minimize stormwater pollution prior to and during construction.

Section V, Geology and Soils, and Section VIII, Hydrology and Water Quality, include typical BMPs and design measures that would reduce potential impacts to water quality and, therefore, dependent biological resources, to below a level of significance. While specific BMPs would be determined during the SWPPP process based on site-specific characteristics, they would likely include standard industry measures and guidelines contained in sources such as the NPDES Construction General Permit text and related City and County regulations. Details of such typical measures can be found in Appendix B.

Fugitive Dust: Dust produced by construction could disperse onto native vegetation adjacent to construction areas. A continual cover of dust could reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or disease. This in turn could affect animals dependent on these plants (e.g., seed-eating rodents). Dust also could make plants unsuitable as habitat for insects and birds.

As described in Section II, Air Quality, dust dispersal during project construction would be controlled by standard measures such as applications of water three times per day or use of chemical palliatives, covering haul vehicles (if any), replanting disturbed areas as soon as practical, and restricting vehicle speeds on unpaved roads up to 25 miles per hour or less. Because active construction areas and unpaved surfaces would be watered pursuant to City and County grading permit requirements to minimize dust generation, related impacts to biological resources would be less than significant.

Colonization of Non-native Plant Species: Non-native plants could colonize areas disturbed by construction and could potentially spread into adjacent native habitats along the pipeline alignments. Many non-native plants are highly invasive and can displace native vegetation, potentially increase flammability and fire frequency, change ground and surface water levels, and adversely affect native wildlife dependent on the native plant species. Non-native plant colonization is already a significant issue as a result of existing agricultural activities and residential uses within the BSA. Pursuant to the Draft Escondido Subarea Plan, landscaping and revegetation restrictions would apply and consist of the following:

- Plant palette would be composed of native species similar to, and compatible with, any adjacent preserve areas
- Use of non-native invasive plant species are prohibited in landscaping palettes within 1,000 feet of the preserve
- Revegetate area of exotic species removal with species appropriate to adjacent preserve

In addition, any landscape plan would be submitted to the City and County for review and approval prior to issuance of any clearing or grading permit. As such, impacts to native habitat from invasive plants within the BSA would be less than significant.

Habitat Fragmentation/Edge Effects: Removal of existing native habitats within the BSA would result in some habitat fragmentation and an increase in associated edge effects. Fragmentation is the breaking up of larger, contiguous parcels of habitat into smaller, discontiguous patches. Potential edge effects from such fragmentation could include the invasion of non-native plant species into newly fragmented areas, and access by predators (native and non-native) to prey that would otherwise be protected in an unfragmented parcel of habitat.

Although implementation of the proposed project would impact 1.3 acres of sensitive habitat, these impacts would occur along narrow corridors, with the majority of the impacts occurring along existing roadways, an existing cemetery, agricultural areas, and residential areas. As such, impacts resulting from habitat fragmentation/edge effects would be less than significant.

Construction Noise: Noise from such construction-related sources as grubbing, clearing, and grading, as well as construction-related vehicular traffic, would impact local wildlife. Noise-related impacts would be considered significant if sensitive species (such as coastal California gnatcatchers or raptors) were displaced from their nests and failed to breed. Birds nesting within any area impacted by noise exceeding 60 dB L_{eq} or ambient levels (if ambient is greater than 60 dB L_{eq}) may be significantly impacted.

Night Lighting: Night lighting has the potential to spill over into adjacent native habitats, which could both interfere with wildlife movement and provide nocturnal predators with an unnatural advantage over their prey, thereby potentially causing an increased loss in native wildlife. Existing outdoor lighting sources within the BSA includes those associated with residential uses and generally are of low wattage. The proposed pressure-reducing structure is not expected to require night lighting for its operations; however, if emergency or other conditions require temporary night lighting at the pressure-reducing structure, associated impacts would be short term and less than significant. Should the pressure-reducing structure require permanent lighting, that lighting would be required to adhere to Section 33-711 of Article 35 (Outdoor Lighting) of the Escondido Municipal Code and Division 9 of the San Diego County Light Pollution Code. Accordingly, impacts associated with operational night lighting, should it be necessary, would be less than significant.

Project construction generally would be conducted during daylight hours; however, some activities may occur after dark and limited night lighting may be required at certain intersections, within the Cemetery, and during final connections. In the unlikely event of emergency conditions that would require extended (nighttime) construction hours, artificial lighting could be required for a short time. Short-term construction lighting within the project footprint adjacent to preserved habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat. Based on this and because of the short-term duration associated with such potential scheduled or emergency lighting conditions, impacts from construction-related night lighting, should it occur, would be less than significant.

Human Activity: Increases in human activity in the area could result in degradation of sensitive species through the creation of unauthorized roads or trails, removal of native vegetation, and illegal dumping. Based on the nature of the project (mainly construction, minimal operations/maintenance), increased human activity in adjacent undeveloped areas is not anticipated during project operations. Impacts from human activity during construction, should they occur, could potentially result in a significant project-related indirect impact.

Mitigation Measures

Implementation of the proposed project would directly and/or indirectly exceed significance thresholds relative to sensitive vegetation communities, sensitive wildlife species, construction noise, and construction-related human activity. Exceeding these thresholds could result in significant impacts, as described above. Implementation of the following mitigation measures would reduce impacts to biological resources to below a level of significance.

Bio-1 Mitigation for impacts to non-jurisdictional coast live oak woodland (including disturbed) within the City and unincorporated County shall occur at a 2:1 ratio through creation and enhancement of suitable habitat or acquisition of suitable habitat credits at an approved mitigation bank in consultation with the City, County, and resource agencies (Corps, CDFG) prior to clearing, grubbing or grading (Table 1). Mitigation banks within the North County area include Daley Ranch, Heights of Palo Mesa Conservation Bank, Pilgrim Creek Mitigation Bank, and North County Habitat Bank.

Mitigation for impacts to Diegan coastal sage scrub (including disturbed) within the unincorporated County shall occur at a 1.5:1 ratio while impacts to non-native grassland within the City and unincorporated County shall be mitigated at a 0.5:1 ratio through creation and enhancement of suitable habitat or acquisition of suitable credits at an approved mitigation bank in consultation with the County and resource agencies prior to clearing, grubbing or grading (Table 1). Mitigation banks within the project vicinity include Daley Ranch, Heights of Palo Mesa Conservation Bank, Pilgrim Creek Mitigation Bank or North County Habitat Bank.

No impacts to Corps and CDFG jurisdictional areas and RPO wetlands are anticipated; therefore, no related mitigation is required.

Table 1
MITIGATION SUMMARY FOR IMPACTS TO VEGETATION COMMUNITIES (acre[s]) [1]

VEGETATION COMMUNITY[2]	HABITAT GROUP/TIER[3]	IMPACT		RATIO		MITIGATION
		City	County	City	County	
Southern coast live oak riparian forest (including disturbed; 61310)	A/I	0.00	0.00	3:1[4]	3:1[4]	0.00
Willow riparian woodland (62000)	A/I	0.00	0.00	3:1[4]	3:1[4]	0.00
Riparian scrub (63000)	A/I	0.00	0.00	3:1[4]	3:1[4]	0.00
Coast live oak woodland (including disturbed; 71160)	B/I	0.1	0.2	2:1[4]	2:1[4]	0.6
Diegan coastal sage scrub (including disturbed; 32510)	C/II	0.0	0.6	1:1[4]	1.5:1	0.9
Non-native grassland (42200)	E/III	0.2	0.2	0.5:1[4]	0.5:1[4]	0.2
Non-native vegetation (11000)	--	0.0	0.0	--	--	0.0
Agriculture (orchards; 18100)	F/IV	0.0	0.7	--	--	0.0
Disturbed habitat (11300)	F/IV	0.3	0.1	--	--	0.0
Developed (12000)	F/IV	1.5	2.1	--	--	0.0
SUBTOTAL	**--**	**2.1**	**3.9**	**--**	**--**	**1.7**
TOTAL	**--**	**6.0**		**--**		**1.7**

[1]Wetland acreages are rounded to the nearest 0.01, while upland acreages are rounded to the nearest 0.1; thus, totals reflect rounding.
[2]Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).
[3]Habitat Groups taken from the Draft Escondido Subarea Plan and Tiers taken from the County's Biological Mitigation Ordinance (BMO).
[4]Mitigation ratio assumes that impacts within the County are within the Biological Resource Core Area (BRCA) and that mitigation would occur within areas meeting BRCA criteria (see Attachment M of the County's BMO for more information). This ratio also assumes that impacts within the City are outside the City's Focused Planning Area (FPA) (see Table 5-2 of the City's Draft HCP for more information).

Bio-2 Indirect impacts to sensitive animal species (through loss of habitat) shall be mitigated through implementation of Mitigation Measure **Bio-1**, above.

Bio-3 Unless a pre-grading survey is conducted within three days prior to the initial disturbance, no grubbing, clearing, or grading within 500 feet of occupied Diegan coastal sage scrub during the gnatcatcher breeding season (February 15 through August 31) or tree-nesting raptor breeding season (February 1 through September 15) shall occur. As such, all grading permits, improvement plans, and the final map shall state the same.

If grubbing, clearing, or grading would occur during the gnatcatcher and/or raptor breeding season, a pre-grading survey shall be conducted within three days prior to grading to determine if these species occur within the areas directly impacted by grading or indirectly impacted by noise. If there are no gnatcatchers or raptors nesting (includes nest building or other breeding/nesting behavior) within this area, development shall be allowed to proceed. However, if any of these birds are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after September 15; or (2) a temporary noise barrier or berm shall be constructed at the edge of the development footprint to reduce noise levels below 60 dB L_{eq} or ambient (if ambient is greater than 60 dB L_{eq}). Alternatively, the duration of construction equipment operation could be controlled to keep noise levels below 60 dB L_{eq} or ambient in lieu of or in concert with a wall or other sound attenuation barrier.

To ensure compliance with the MBTA, clearing of native vegetation shall occur outside of the breeding season of most avian species (March 1 through July 31) unless a pre-grading survey is negative. Clearing during the breeding season of MBTA-covered species (migratory birds that are native to the U.S. or its territories) could occur if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present within three days prior to clearing. As described above, a pre-grading survey shall be conducted to determine if breeding or nesting avian species occur within areas directly affected by grading or indirectly affected by noise. If any of these birds are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until (1) the nest is abandoned or the young have fledged or (2) after July 31.

Bio-4 In areas adjacent to sensitive vegetation, the construction and staging area limits shall be clearly demarcated with temporary construction (orange blaze) fencing under the supervision of a qualified biologist to ensure that construction activity remains within the defined limits of work (refer to Figures 8a and 8b in the BTR). This fencing shall be erected prior to commencement of brushing or grading activities and shall demarcate areas where human and equipment access and disturbance from grading are prohibited adjacent to sensitive habitats. All site preparation near these interfaces shall be monitored by a qualified biologist

during construction activities. A qualified biologist also shall inspect the demarcated areas during regularly scheduled construction monitoring visits.

Bio-5 The Corps jurisdictional Waters of the U.S., CDFG jurisdictional Waters of the State, and County RPO wetlands within the BSA shall be avoided and no impacts shall occur to these jurisdictional areas and County RPO wetlands adjacent to the project alignment. The Corps and CDFG jurisdictional areas and County RPO wetlands to be avoided shall be clearly demarcated with temporary construction (orange blaze) fencing under the supervision of a qualified biologist to ensure that construction activity remains outside of these sensitive areas (refer to Figures 8a and 8b in the BTR). This fencing shall be erected prior to commencement of brushing or grading activities and shall demarcate areas where human and equipment access and disturbance from grading are prohibited adjacent to sensitive jurisdictional habitats and County RPO wetlands. All site preparation near these interfaces shall be monitored by a qualified biologist during construction activities. A qualified biologist also shall inspect the demarcated areas during regularly scheduled construction monitoring visits.

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;

The Draft Escondido Subarea Plan identifies Cloverdale Creek, located immediately east of the BSA, as a Biological Core and Linkage Area. The creek, which flows from north to south and connects to Santa Ysabel Creek eventually flowing into Lake Hodges, acts as a regional corridor. In addition, a small portion of the BSA is within the PAMA which, according to the County's MSCP, meets the requirements of a Biological Resource Core Area (BRCA) (see Figure 3 in Appendix A). The BSA, however, is outside any wildlife corridor or linkage. A small portion of an unnamed tributary to Cloverdale Creek, which occurs within the BSA near the southeastern edge of the Cemetery, potentially acts as a local wildlife corridor. The project would maintain existing wildlife corridors and/or habitat linkages and would not preclude connectivity between areas of high habitat values. Based on the foregoing and the fact that the project would not build structures within areas of sensitive habitat, impacts to riparian habitat with the potential to act as a local wildlife corridor would be less than significant.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

f. Conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved state, regional, or local habitat conservation plan.

As detailed in the project BTR and referenced above, the proposed project could be subject to several regulatory provisions, policies, and ordinances of the federal government; state government; the City of Escondido; and the County of San Diego. Discussions of the federal ESA-, MBTA-, and Clean Water Act [CWA]-related issues that pertain to the project are included

above, in the project BTR (Appendix B), and in Section VIII, Hydrology and Water Quality. A discussion of applicable state, regional, and local ordinances and policies is provided below.

The NCCP Act (Section 2835) allows CDFG to authorize take of species covered by plans in agreement with NCCP guidelines. An NCCP initiated by the State of California under Section 4(d) of the federal ESA focuses on conserving coastal sage scrub to avoid the need for future federal and state listing of coastal sage scrub-dependent species. The coastal California gnatcatcher is presently listed as threatened under the federal ESA, while several additional species inhabiting coastal sage scrub are candidates for federal and/or state listing. The Draft Escondido Subarea Plan and County's 1997 MSCP Subarea Plan are intended to be completed subarea plans under the NCCP and HCP processes.

Under the 2003 MHCP Subregional Plan, each of the seven jurisdictions within the MHCP planning area, including Escondido, are required to implement their respective portion of the MHCP via citywide subarea plans. Each enrolled jurisdiction is allowed a loss of up to five percent of its coastal sage scrub habitat if it is actively developing a NCCP. The Draft Escondido Subarea Plan, which addresses the City's plans for conservation of natural biotic communities and sensitive plant and wildlife species, represents the City's contribution to the MHCP and to regional NCCP conservation goals.

The City circulated a Draft Escondido Subarea Plan for public review in June 2001, but it has not yet been approved. The proposed project would not preclude or prevent the preparation of the subregional NCCP. Approval and adoption of the Draft Escondido Subarea Plan by the City would result in the issuance of federal and State authorizations (granted by USFWS and CDFG) for the take of listed rare, threatened or endangered species, as well as the preservation and/or restoration of habitat in some areas of the City. The City, in turn, would then be able to authorize the taking of natural habitats or associated species by public or private projects within its jurisdiction, as long as those biological resources are adequately conserved by, and the project impacts are consistent with and covered by, the provisions of the Draft Escondido Subarea Plan. Adequate mitigation must also occur in the form of preservation or restoration/creation of biological resources within designated habitat preserve areas.

Issues discussed in the Draft Escondido Subarea Plan that pertain to the proposed project include: Habitats Conserved, Mitigation Standards for Vegetation Communities, Conservation and Buffer Requirements along Tributaries and Creeks, and Wetlands Mitigation Standards. These issues are discussed in detail in the project BTR (Appendix B), with relevant points included below. The Narrow Endemic Species standards of the Draft Escondido Subarea Plan are not covered because no City narrow endemic plant species were observed within the BSA. Issues pertaining to Focused Planning Areas (FPAs) are also discussed in the BTR.

As noted above, unincorporated County lands within the BSA are located within the Metro-Lakeside-Jamul Segment of the County's MSCP Subarea. A portion of the BSA also is within the Pre-approved Mitigation Area (PAMA). Although impacts to Diegan coastal sage scrub would occur upon implementation of the proposed project, these impacts only would occur in the unincorporated County and would not exceed the County's five-percent habitat loss threshold as defined by the NCCP. Mitigation for Diegan coastal sage scrub impacts is proposed, as

discussed above under mitigation measures **Bio-1** through **Bio-4**. As such, the project would mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines, and in accordance with the standards of the Draft Escondido Subarea Plan and County's approved MSCP.

There is no Habitat Management Plan or Special Areas Management Plan applicable to the project. The project would conform to the goals and requirements of the San Dieguito and Carlsbad Watershed Urban Runoff Management Programs.

The project would conform to the goals and requirements as outlined in an applicable HCP (e.g., Draft Escondido Subarea Plan and County MSCP Subarea Plan). Project implementation would impact a relatively small area of the proposed PAMA (refer to Figure 3 in the project BTR). Construction and maintenance of public facilities such as a water pipeline are covered activities under the County's MSCP. As a result, project implementation is not considered a conflict with the applicable HCPs and impacts would be less than significant. The portion of the BSA considered a PAMA is also a County of San Diego BRCA. Given that the project consists of installation of sub-grade water pipelines (linear features) and the project has been designed to minimize impacts to the BRCA to the maximum extent practicable, impacts to BRCA would be less than significant.

IV. CULTURAL RESOURCES

Significance Criteria and Impact Analysis

The effects of a project on cultural resources are considered to be significant if the proposed project would:

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 an archaeological resource pursuant to §15064.5;*
c. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or*
d. *Disturb any human remains, including those interred outside of formal cemeteries.*

Historical and Archaeological Resources

A cultural resources records search and an archaeological survey of the project area were conducted in March 2010 by archaeologists from Affinis Environmental Services (Affinis) and a Native American Monitor. A historic study of Oak Hill Memorial Park was conducted by Walter Enterprises and incorporated by Affinis in their 2011 Cultural Resources Survey Report (Affinis 2011). The report is summarized below and included as Appendix C to this Draft MND.

Historical Resources. Oak Hill Memorial Park is a historic cemetery serving the Escondido community since the late 1880s. Among the approximately 22,000 interments are a number of prominent Escondido citizens and members of pioneer families. As explained in the historic

study contained within Appendix C, the Cemetery is a significant cultural (historic) resource, meeting the criteria for significance under CEQA and the significance criteria and integrity criteria for listing on the National Register of Historic Places and the California Register of Historical Resources (Affinis 2010). Accordingly, direct impacts to this resource would be significant. The portion of the proposed Ra pipeline alignment that would pass through the Cemetery has been designed to avoid impacts to interred human remains (North County Cemetery District 2010), as well as structures or features of the Cemetery. Accordingly, the project is not expected to have direct impacts to this cultural resource. Due to the cultural sensitivity of the Cemetery, however, the potential does exist for the discovery of human remains or other inadvertent impacts to occur during project construction. The disturbance of human remains would be considered a significant impact. Based on the sensitivity of the Cemetery, monitoring is recommended to minimize the potential for inadvertent impacts. The monitoring program is described below.

Archaeological Resources. The Native American Heritage Commission (NAHC) conducted a check of their Sacred Lands File and interested parties identified by the NAHC were contacted regarding the project. The check of the Sacred Lands File indicated that no Native American cultural resources are recorded within one-half mile of the project area; however, Native American cultural resources are known in proximity to the project. Although there are numerous archaeological sites recorded in the vicinity, no archaeological or historic resources, other than Oak Hill Memorial Park, were identified within the cultural resources survey area during the current survey. As such, no impacts to archaeological resources are anticipated to occur. Due to the cultural sensitivity of this area, however, monitoring is recommended during ground disturbing activities, as addressed below.

Mitigation Measures

No significant impacts are anticipated from the proposed pipeline replacement project, but due to the cultural sensitivity of the area, a monitoring program would be implemented for the project to minimize the potential for impacts to occur during project construction. The monitoring program would include the following elements:

CR-1 Prior to implementation of the monitoring, a pre-excavation agreement shall be developed between the appropriate Native American Tribes and the Water Division. Due to the location of the project, both Kumeyaay and Luiseño representatives should be included;

CR-2 The qualified archaeologist and the Native American representatives shall attend the pre-grading meeting with the contractors to explain the requirements of the program;

CR-3 An archaeologist and Native American monitors shall be on-site during all brushing and clearing, as well as during grading, trenching, and other ground-disturbing activities that occur within the first three feet below grade, unless otherwise agreed upon by the archaeological Principal Investigator, the Native American representatives, and Water Division staff. During the initial monitoring phase, the archaeological Principal Investigator shall re-evaluate the proposed alignments and

identify those disturbance areas which are either in paved roads outside of alluvial areas; on very steep slopes without bedrock outcrops; or in bedrock, and therefore less likely to contain cultural resources. Decisions will be made in the field as to which areas do not requiring monitoring by an archaeologist. Native American monitors, however, shall be on site during all brushing, clearing, and other ground-disturbing activities, as noted above;

CR-4 If cultural resources are encountered, the monitors shall have the authority to temporarily halt or redirect grading/trenching while the cultural resources are documented and assessed. If significant resources are encountered, appropriate mitigation measures must be developed and implemented;

CR-5 If any human remains are discovered, the County Coroner shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains;

CR-6 Recovered artifactual materials shall be cataloged and analyzed;

CR-7 If determined appropriate upon the discovery of cultural resources, a report shall be completed describing the methods and results of the monitoring and data recovery program;

CR-8 Artifacts collected (if any) shall be curated with accompanying catalog to current professional repository standards or the collection will be repatriated to the appropriate Native American Tribe(s), as specified in the pre-excavation agreement.

Paleontological Resources

The proposed project is located in the Peninsular Ranges Geomorphic Province in a portion underlain by Cretaceous granitic rock. Additional geologic units include fill, alluvium, topsoil and decomposed granite (Ninyo and Moore 2010a). Potential paleontological resources are typically found in sedimentary rock and would not be anticipated in granitic rock or in the deposits that overlay it in the project area. Furthermore, excavation activities would primarily occur in areas previously disturbed by existing utility trenches, roads or other development associated with the surrounding residential and agricultural land uses. Therefore, implementation of the proposed project is not expected to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, and impacts would be less than significant.

V. GEOLOGY AND SOILS

A Geotechnical Report was prepared for the proposed project by Ninyo and Moore (2010a) and is summarized below, with the complete report included as Appendix D of this analysis. The Geotechnical Report concludes that "…construction of the proposed project is feasible from a geotechnical standpoint…" provided that applicable geotechnical considerations are incorporated. The report identifies a number of recommendations related to seismic and non-seismic concerns, including conformance with applicable regulatory standards and a number of site-specific measures to avoid significant impacts. Geotechnical recommendations are summarized below, with additional detail provided in Appendix D.

Significance Criteria and Impact Analysis

The effects of a project on geology and soils are considered to be significant if the proposed project would:

a. *Expose people or structures to potentially 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; or*
    iv. *Landslides.*

The project site is not located within a State of California Fault-Rupture Hazard Zone (formerly known as Alquist-Priolo Special Studies Zones), although the alignment is within a seismically active area and could potentially be subject to strong seismic ground motion during the design life of the project. Potential seismic hazards evaluated in the project Geotechnical Report include surface fault rupture, ground motion, liquefaction, dynamic settlement and landslides. The report also evaluates the potential for hazards associated with seismically induced tsunamis and seiches, with associated potential impacts addressed below in Section VIII, Hydrology and Water Quality.

No active faults are known to cross the project site, although several active faults traverse the Peninsular Ranges Province. The active Elsinore fault is located approximately 14 miles east of the project area, and the active Rose Canyon fault is located approximately 19 miles west of the project area. While lurching or cracking of the ground surface as a result of nearby seismic activity is possible, the probability of such events occurring on site is identified as low and associated potential impacts are considered less than significant.

The project site is within a seismically active region, and is potentially subject to strong ground shaking from earthquake events along major regional faults. Ground shaking (or ground acceleration) is expressed in terms of "g" forces, where g equals the acceleration due to gravity.

The 2007 California Building Code (CBC) recommends that the design of structures be based on the horizontal peak ground acceleration (PGA) having a two-percent probability of being exceeded during a 50-year period, which is defined as the Maximum Considered Earthquake (MCE). Estimated PGA values identified in the Geotechnical Report for the project site range from 0.46g (probabilistic PGA) to 0.31g (design PGA). These estimated ground acceleration values could potentially result in significant impacts to proposed pipelines and related facilities if not properly addressed. The Geotechnical Report identifies a number of associated recommendations, including conformance with applicable regulatory standards and appropriate site preparation, loading design, excavation parameters, and fill composition/placement. Specific regulatory standards include the noted CBC, as well as the International Building Code (IBC, which encompasses the former Uniform Building Code [UBC]) and the Greenbook Standard Specifications for Public Works Construction (Greenbook), with detailed recommendations provided in Appendix D. Based on conformance with these recommendations and related regulatory standards, implementation of the proposed project would not be subject to significant impacts related to seismic ground acceleration.

Liquefaction is the phenomenon in which surficial materials located below the water table undergo a rapid loss of shear strength when subjected to strong earthquake-induced ground acceleration. Ground acceleration of sufficient duration can result in the loss of grain-to-grain contact due to a rapid rise in pore water pressure, and cause the soil to behave as a fluid for a short period of time (with an associated loss of support for surface and subsurface structures). Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet below the ground surface. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and the intensity and duration of ground acceleration. Based on data review, local geologic and soil conditions, and subsurface exploration, the project Geotechnical Report concludes that the proposed alignments are not underlain by a near-surface groundwater table, and that "…the potential for liquefaction or seismically induced settlement along the project alignments is not a design consideration." Based on this conclusion, no significant impacts associated with liquefaction (or related effects such as dynamic settlement or lateral spreading) are anticipated from project implementation.

The project site is not within areas considered susceptible to landslides. Based on this conclusion, the site-specific investigation, and the fact that most proposed facilities are located underground, the project Geotechnical Report concludes that "… landslide hazards are not a design consideration for the project." Accordingly, no significant impacts associated with landslides are anticipated from implementation of the proposed project.

b. Result in substantial soil erosion or the loss of topsoil;

The potential for project-related erosion and sedimentation varies from generally low to moderate, based on the nature and location of proposed activities (e.g., narrow pipeline trenching located in existing roadways as well as steep undeveloped areas). Proposed grading, excavation, demolition, and construction activities would increase the potential for erosion and transport of eroded material (sedimentation) both within and downstream of the alignments. Specifically, project activities would involve: (1) removal of surface stabilizing features (e.g., vegetation);

(2) excavation of existing compacted materials from trenching areas; (3) redeposition of excavated (and/or imported) material as backfill along the proposed alignments; and (4) potential erosion from disposal of extracted groundwater (if required, refer to Section VIII, Hydrology and Water Quality for additional discussion). The influx of sediment into downstream receiving waters could result in direct effects such as increased turbidity, and would also provide a transport mechanism for other contaminants such as hydrocarbons that tend to adhere to sediment particles.

While graded/excavated areas and fill materials would be stabilized through efforts such as trench backfill and repaving or revegetation, erosion potential would be higher in the short-term than during pre-construction conditions. Erosion and sedimentation are not considered to be significant long-term concerns for the proposed project, as all developed areas would be stabilized as noted.

Short-term erosion and sedimentation impacts would be addressed through conformance with the NPDES Construction General Permit (NPDES No. CAS000002, SWRCB Order 2009-0009-DWQ). Specifically, conformance with the Construction General Permit is required prior to development of applicable sites exceeding one acre, with this permit issued by the SWRCB under an agreement with the Environmental Protection Agency (EPA). Specific conformance requirements include implementing a SWPPP, an associated Construction Site Monitoring Program (CSMP), employee training, and minimum BMPs, as well as a Rain Event Action Plan (REAP) for applicable projects (i.e., those in Risk Categories 2 or 3 outlined below). Under the Construction General Permit, project sites are designated as Risk Level 1 through 3 based on site-specific criteria (e.g., erosion potential and receiving water risk), with Risk Level 3 sites requiring the most stringent controls. Based on the site-specific risk level designation, the SWPPP and related plans/efforts identify detailed measures to prevent and control the off-site discharge of pollutants in storm water runoff. Depending on the risk level, these may include mandatory technology-based action levels, effluent limitations, and advanced treatment systems (ATS). Specific pollution control measures require the use of best available technology economically achievable (BAT) and/or best conventional pollutant control technology (BCT) levels of treatment, with these requirements implemented through applicable BMPs. While site-specific measures vary with conditions such as risk level, proposed grading, and slope/soil characteristics, detailed guidance for construction-related BMPs is provided in the Construction General Permit, as well as additional sources including the City of Escondido *Standard Urban Storm Water Mitigation Plan* (SUSMP, 2010), and California Storm Water Quality Association (CASQA) *Storm Water Best Management Practices Handbooks* (CASQA 2009). Specific requirements for the proposed project under this permit would be determined during SWPPP development, after completion of project plans and application submittal to the SWRCB.

Typical erosion and sediment control measures that may be required in the project SWPPP include the following: (1) seasonal grading restrictions during the rainy season (October 1 to April 30) for applicable areas; (2) preparation and implementation of a CSMP and, if applicable, aREAP to provide enhanced erosion and sediment control measures prior to predicted storm events; (3) use of erosion control/stabilizing measures such as geotextiles, mats, fiber rolls, or soil binders; (4) use of sediment controls to protect the site perimeter and prevent off-site sediment transport, including measures such as silt fencing, fiber rolls, gravel bags, temporary

sediment basins, street sweeping, stabilized construction access points and sediment stockpiles, and use of properly fitted covers for sediment transport vehicles; (5) compliance with local dust control measures, and (6) implementation of additional BMPs as necessary to ensure adequate erosion/sediment control and regulatory conformance.

Based on implementation of appropriate erosion and sediment control BMPs as part of, and in conformance with, the project SWPPP and related NPDES/City requirements, associated potential erosion and sedimentation impacts would be avoided or reduced below a level of significance. Erosion and sedimentation BMPs implemented for the proposed project would be further defined during the NPDES permit/SWPPP process, with the resulting measures taking priority over the more general types of industry standard measures listed above.

c. Be located on a 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;

Based on the previously described nature and location of proposed facilities (e.g., small-diameter subsurface potable and recycled water pipelines and small pressure-reducing structure) and the Geotechnical Report conclusions, project area soil and geologic conditions are generally suitable for proposed development, provided that proper design and construction measures are implemented. Potential liquefaction (and related effects such as lateral spreading) and landsliding impacts are discussed above in association with items a.iii and a.iv of this section. Potential impacts related to phenomena such as subsidence and collapse are generally not considered significant with respect to the proposed project, based on the following considerations: (1) subsidence is typically associated with conditions such as groundwater (or other fluid) withdrawal or loading related to placement of larger surface structures, with the proposed project therefore generally not considered susceptible to subsidence-related effects; (2) the project site is underlain by granitic bedrock and related materials (decomposed granite), which are generally not subject to collapse; and (3) potentially less-stable materials present within the project area (e.g., fill, alluvium and topsoil) would be addressed through the required inclusion of geotechnical recommendations and conformance with applicable regulatory requirements (as described in association with items a and b of this section and the project Geotechnical Report in Appendix D). Specifically, such measures would include provisions related to the composition of materials used as pipeline trench (or other facility) backfill and trench/foundation design, pursuant to standards from sources including the CBC, IBC, and Greenbook. Conformance with the described geotechnical recommendations and industry standards would effectively avoid or reduce associated geologic and soil stability impacts below a level of significance.

Additional possible issues related to collapse identified in Appendix D involve the stability of pipeline trenches (and related safety effects for construction workers), the possible generation of oversize materials during trenching that may not be suitable for use as backfill, and the possible occurrence of corrosive soils. Trench excavations typically involve vertical or near-vertical walls, and can exhibit instability and the potential for collapse related to loose or unstable soil and geologic materials. Such instability can be exacerbated through the presence of groundwater or, in the case of the project site, the potential occurrence of jointing and fracturing in local

bedrock. The project Geotechnical Report identifies a number of recommendations to address potential trench instability, including conformance with applicable Occupational Safety and Health Administration (OSHA) requirements involving efforts such as trench slope limitations and shoring requirements. Conformance with these recommendations and related regulatory requirements would avoid or reduce all potential impacts related to trench stability below a level of significance.

Project-related excavation and/or blasting in granitic bedrock may generate oversize materials that are not suitable for use in backfill. Specifically, improper use of oversize materials in fill can result in effects such as differential compaction (varying levels of compaction over short distances) that may adversely affect subsurface structures. The project Geotechnical Report identifies a number of recommendations to address these potential effects, including crushing and/or off-site disposal of oversize materials at an approved location. Conformance with these recommendations would avoid or reduce all potential impacts related to oversize materials below a level of significance.

Corrosion testing for soil resistivity, chloride and sulfate content, and acidity (pH) was conducted as part of the project Geotechnical Investigation (Appendix D), and in a separate corrosion analysis completed by V&A (2010, refer to Appendix E). These analyses identified potential mild corrosivity effects to steel and ductile iron structures from soil resistivity, mild corrosivity effects to buried metallic structures and reinforcing steel from chloride content, and negligible corrosivity effects to buried steel and concrete structures from sulfate content and pH levels. Based on these conclusions, a number of design recommendations are provided to address potential project-related corrosion impacts, including the use of protective coatings and corrosion test stations for buried metallic pipelines (and applicable metallic structures such as joints and valves), verification of continuity between metallic piping, isolation of pipelines from other metallic structures, and the use of Type V cement and applicable concrete/water ratios (refer to Appendix E for detailed recommendations). Conformance with these design recommendations would avoid or reduce all potential impacts related to corrosive soils below a level of significance.

d. Be located on expansive soil, as defined in Section 1802.3.2 of the International Building Code, creating substantial risks to life or property; or

Expansive (or shrink-swell) behavior in surface or near-surface materials is attributable to the water holding capacity of clay materials. Such behavior can adversely affect structural integrity (including underground pipelines) through shifting of foundations or supporting materials during the shrink-swell process. Potential impacts to proposed facilities from expansive soils are considered less than significant, based on the required inclusion of geotechnical investigation recommendations and appropriate industry standards in the project design (as described above in this section and in the project Geotechnical Report in Appendix D). Such measures would include provisions related to the composition of materials used as pipeline trench (or other facility) backfill and foundation design, pursuant to existing industry standards, including applicable elements of the IBC, CBC and Greenbook. Additionally, the Geotechnical Report specifically recommends that "Imported materials should consist of clean, granular materials with a low expansion potential, corresponding to an expansion index of 50 or less as evaluated in

accordance with ASTM D 4829." (with the noted ASTM requirements included as part of the IBC Section 1802.3.2 criteria). All backfill materials would be required to meet these standards for (among other criteria) composition to ensure stable conditions for proposed facilities. If expansive materials are encountered during project construction, backfill composition requirements could be met through (for example) replacing the expansive soils with engineered fill. Conformance with the described recommendations and industry standards would avoid or reduce all potential impacts related to expansive soils below a level of significance.

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.

The proposed project would not require wastewater facilities, and no related impacts would occur.

VI. GREENHOUSE GAS EMISSIONS

Significance Criteria and Impact Analysis

a. Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment; or
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Global Climate Change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O), and ozone. These gases, known as greenhouse gases (GHGs), allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and contributing to what is termed "global warming," the trend of warming of the Earth's climate from anthropogenic activities.

While no CEQA significance thresholds for GHG emissions have been developed by the City, the County developed an interim significance threshold for GHG emissions under CEQA. The County's recommended interim GHG significance threshold proposal (County 2010) identified a screening level of 900 metric tons of CO_2e emissions[1] per year. For construction emissions, the interim guidance recommends that the emissions be amortized over 30 years, as appropriate. Construction GHG emissions are anticipated to total less than 900 metric tons of CO_2e over the

[1] The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere, and is expressed as a function of how much warming would be caused by the same mass of CO_2. For instance, CH_4 has a global warming potential of 21, meaning that one gram of CH_4 traps the same amount of heat as 21 grams of CO_2.

period of construction. As global climate change impacts are by nature cumulative, direct impacts cannot be evaluated because the impacts themselves are global rather than localized. The analysis herein, therefore, addresses cumulative impacts.

GHG emissions associated with the proposed project generally would be confined to emissions associated with construction activities for the installation of the pipelines and pressure-reducing station. GHG emissions associated with the construction phase of the project would be generated through use of heavy equipment and vehicle trips. Accordingly, construction-related emissions of greenhouse gases would be short term and temporary. Moreover, if emissions are amortized over a 30-year period, construction-related GHG emissions would be negligible because they would be well below the 900-metric ton screening threshold recommended by the County. Construction-related impacts resulting from GHG emissions would be less than significant.

GHG emissions resulting from operational activities would remain virtually unchanged from present levels. There is also a chance that the proposed recycled water line, once activated, could have a minor beneficial effect on GHG emissions because it would reduce the amount of potable water transmitted to the area – and, therefore, the associated transport, pumping, and water treatment emissions that could occur. A limited number of vehicle trips would be necessary to maintain the proposed pressure-reducing station, and associated GHG emissions would be negligible. If periodic maintenance of the newly installed pipelines is necessary, related vehicular emissions also would be negligible. Based on the foregoing, operational impacts resulting from GHG emissions would be less than significant.

As discussed, the proposed project would have negligible GHG emissions. The proposed project would not result in emissions that would adversely affect State-wide attainment of GHG emission reduction goals as described in AB 32 and Executive Order S-21-09. Construction and operational emissions, therefore, would have a less-than-cumulatively considerable contribution to global climate change impacts. Impacts would be less than significant.

VII. HAZARDS AND HAZARDOUS MATERIALS

A Hazardous Materials Technical Study was prepared for the proposed project by Ninyo and Moore (2010b) and is summarized below, with the complete report included as Appendix F of this analysis. The project Hazardous Materials Study involved the following efforts: (1) review of historical records such as topographic/geologic maps, aerial photographs, agency records, and groundwater data; (2) site and vicinity field reconnaissance; (3) environmental database record searches; and (4) review and interpretation of assessed data to provide project-specific conclusions and recommendations, as outlined below.

Significance Criteria and Impact Analysis

The effects of a project on hazards and hazardous materials are considered to be significant if the proposed project would:

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;

The project's proposed replacement of existing water pipelines, installation of a recycled water pipeline, and construction of a pressure-reducing structure is not anticipated to be associated with the routine transport, use, or disposal of hazardous materials or wastes and would therefore result in no associated impacts. Additionally, the pipeline project is not reasonably expected to disturb hazardous materials or wastes that may be present within the project area, including contaminated soil and/or groundwater. Furthermore, because hazardous materials or wastes are not anticipated to be associated with the proposed replacement of existing water pipelines, installation of a recycled water pipeline, and construction of a pressure-reducing structure, there is a low likelihood that upset and accident conditions related to hazardous materials or wastes would be associated with implementation of the proposed pipeline project. Some potential exists, however, for hazardous materials or wastes to be encountered or disturbed during project implementation, including materials such as contaminated soil. Disturbance of such materials (if present) could potentially result in significant impacts to the public or the environment. Therefore, implementation of the environmental design measures listed below would reduce impacts to less-than-significant levels.

The design measure implemented to minimize effects related to encountering hazardous materials would include:

- Appropriate references to the potential to encounter contaminated soils and/or groundwater would be included in construction specifications so that the contractor(s) can consider various factors (e.g., soil disposal, dewatering costs) in their work.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

Hidden Valley Middle School is located less than one-quarter mile from the northeast terminus of alignment Rb in the northeastern-most portion of the project area. While small amounts of hazardous materials (such as fuels, lubricants, etc.) would be present on the site during project construction, these materials would be typical of those used at construction sites and would be handled in accordance with applicable local, State, and federal requirements (refer to Section VIII, Hydrology and Water Quality, for additional discussion of construction-related hazardous material use and control). Project operation and maintenance would generally not entail the use or storage of hazardous materials, with such potential use limited to minor quantities of substances such as sealants, paint, or curing compounds. Based on the described conditions,

potential project-related impacts from hazardous material use, handling, or emission within one-quarter mile of a school would be less than significant.

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 create a significant hazard to the public or the environment;

According to the Department of Toxic Substances Control (DTSC), Government Code Section 65962.5 requires that DTSC compile a list of facilities/properties that could contain hazardous waste or have hazardous waste disposed on them. No such properties were found to be located in the project area, the project area does not contain hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no associated impacts would occur.

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, the project would result in safety hazard for people residing or working in the project area;

f. For a project within the vicinity of a private airstrip, the project would result in a safety hazard for people residing or working in the project area;

No airport land use plan has been adopted for the project area. The nearest public or public use airport is the Ramona Airport, which is located over seven miles to the southeast. A small private airstrip is located at the Lake Wohlford Resort, approximately 3.5 miles to the northeast. Due to the distances of the noted facilities from the project site, as well as the fact that the proposed project would not result in occupancy or other conditions that might generate safety concerns, no impacts related to airport or airstrip safety hazards would result from project implementation.

g. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; or

The proposed project would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan. While some project construction would occur within existing roadways and would require temporary road or lane closures or detours, primary access to all major roads would be maintained during construction activities. Accordingly, potential impacts to emergency response or evacuation plans from the proposed project would be less than significant.

h. Expose people or structures to 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.

The proposed project is located in a semi-rural area where residences are intermixed with agricultural areas and wildlands. Because the project would involve predominantly subsurface pipeline and other facilities that are not susceptible to wildfire hazards (e.g., non-occupied concrete/masonry enclosures), it would not increase exposure of people or structures to significant risk of loss, injury or death involving wildland fire. Accordingly, no related impacts would occur from project implementation.

VIII. HYDROLOGY AND WATER QUALITY

Significance Criteria and Impact Analysis

The effects of a project on hydrology and water quality are considered to be significant if the proposed project would:

a. *Violate any water quality standards or waste discharge requirements, including but not limited to increasing pollutant discharges to receiving waters (consider temperature, dissolved oxygen turbidity and other typical storm water pollutants);*
b. *Have potentially significant adverse impacts on ground water resources, including but not limited to, 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 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/increased erosion or siltation on- or off-site;*
d. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site and/or significant adverse environmental impacts;*
e. *Cause significant alteration of receiving water quality during or following construction;*
f. *Cause an increase of impervious surfaces and associated runoff;*
g. *Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;*
h. *Cause potentially significant adverse impact on ground water quality;*
i. *Cause or contribute to an exceedance of applicable surface or ground water receiving water quality objectives or degradation of beneficial uses;*
j. *Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired;*
k. *Otherwise substantially degrade water quality;*
l. *Create or exacerbate already existing environmentally sensitive areas;*
m. *Create potentially significant environmental impact on surface water quality, to either marine, fresh or wetland waters;*
n. *Impact aquatic, wetland or riparian habitat;*

Water Quality

Potential water quality impacts from the proposed project would be limited to construction-related concerns including erosion/sedimentation, the use and storage of hazardous substances such as vehicle fuels and lubricants, and the disposal of extracted groundwater (if necessary). Long-term project operations generally would be limited to routine inspection and maintenance of proposed facilities, and would not involve activities or materials that could result in significant water quality impacts.

As described above in Section V, Geology and Soils, potential construction-related erosion/sedimentation impacts would be avoided or reduced below a level of significance through conformance with the existing NPDES Construction General Permit and related City requirements (e.g., the City SUSMP). Specifically, this would entail implementing a SWPPP and related BMPs in conformance with applicable regulatory requirements.

The noted SWPPP would also address project-related use and storage of construction-related hazardous materials, per the use of appropriate BMPs in accordance with applicable regulatory standards. While detailed BMPs would be determined as part of the NPDES/SWPPP process based on site-specific parameters, they may include the following types of standard industry measures: (1) restricting paving operations during wet weather and use of sediment control devices downstream of paving activities; (2) proper containment and disposal of paving wastes and slurry (e.g., use of properly designed and contained concrete washout areas); (3) minimizing the amount of hazardous materials stored on site and restricting storage/use locations to areas at least 50 feet from storm drains and surface waters; (4) using raised (e.g., on pallets), covered and/or enclosed storage facilities for all hazardous materials; (5) maintaining accurate and up-to-date written inventories and labels for all stored hazardous materials; (6) using berms, ditches and/or impervious liners (or other applicable methods) in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill; (7) placing warning signs in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal; (8) providing training for applicable employees in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill; (9) storing absorbent and clean-up materials in appropriate on-site locations where they are readily accessible; (10) properly locating and maintaining trash and wastewater facilities; (11) posting regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous location at or near the job site trailer; (12) regularly (at least weekly) monitoring and maintaining hazardous material use/storage facilities and operations to ensure proper working order; and (13) implementing a CSMP and a REAP (if applicable) pursuant to regulatory guidelines.

Based on the described use of appropriate BMPs as part of a SWPPP and in conformance with applicable NPDES and City requirements, implementation of the proposed project is not expected to result in significant water quality impacts, including effects related to violations of water quality standards or requirements, erosion/sedimentation, water quality objectives or beneficial uses, deterioration of on-site or receiving water quality (including 303[d] listed

waters), or environmentally sensitive or biological resources (including aquatic, wetland, and riparian habitats).

Project implementation would not result in direct impacts to groundwater quality though activities such as (for example) underground storage of hazardous materials. While shallow groundwater is generally not expected to be encountered during project construction, perched aquifers could potentially be present and require extraction/disposal (dewatering) to facilitate proposed construction operations. If construction-related dewatering is necessary, the project would be required to conform to applicable requirements of the NPDES General Groundwater Extraction Waste Discharge Permit (Groundwater Permit, NPDES No. CAG919002, RWQCB Order No. R9-2008-0002). These requirements are generally applicable to all groundwater discharge regardless of volume, with certain exceptions as noted in the permit text. Specific requirements for permit conformance include: (1) implementing an appropriate sampling and analysis/monitoring program; (2) providing at least 30 days notification to the appropriate local agency prior to discharging to a municipal storm drain system; (3) conforming with applicable water quality standards, including (but not limited to) the Basin Plan, CWA, and State Porter-Cologne Water Quality Control Act; and (4) submittal of applicable monitoring reports.

Conformance with applicable requirements under the NPDES Groundwater Permit would ensure that associated regulatory standards are met, and would reduce potential construction-related water quality impacts from groundwater extraction/disposal (if required) below a level of significance.

Groundwater Resources

This discussion of potential impacts to groundwater resources includes threshold item b, as listed above. The proposed project would not result in any increased use or extraction of local groundwater, with no associated impacts to groundwater supplies, aquifer volumes, or groundwater tables. In the unlikely event that shallow groundwater is encountered during project construction, temporary dewatering efforts would be implemented in conformance with applicable NPDES requirements as noted above. Based on the temporary nature of such potential dewatering activities, no associated significant impacts from the drawdown or depletion of local groundwater resources would be anticipated.

Drainage and Runoff

The discussion of potential drainage and runoff impacts includes threshold items c, d, f, and g, as listed above. Proposed construction activities primarily would involve the installation and abandonment of relatively small diameter pipelines, and would not involve activities that could potentially result in significant effects to local drainage patterns such as substantial grading, topographic alteration, or impacts to drainages or storm drain facilities. Accordingly, no associated significant impacts related to the alteration of existing drainage patterns or directions are anticipated, including effects associated with erosion/sedimentation (as discussed in Section V, Geology and Soils), or runoff generation/flooding (as discussed below). The construction of new impervious surfaces under the proposed project would be limited to a minor (10-by-20-foot) pavement area/pad and concrete housing associated with the proposed pressure-reducing

structure. Because of the incremental nature of this additional impervious area, associated runoff generation would be negligible and would not result in significant impacts related to runoff rates or amounts, storm drain system capacity, or related flooding.

o. 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;
p. Place project within a 100-year flood hazard area structures which would impede or redirect flows;
q. 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; or

The project area is within areas mapped as Zone "X" by the Federal Emergency Management Agency (FEMA), with this designation defined as areas determined to be outside of the 500-year (and therefore the 100-year) floodplain (FEMA 1997a through 1997c). The closest mapped 100-year floodplain is located along South Midway Wash, approximately 150 feet north of the segments of the potable Ra pipeline and recycled water pipeline in Glen Ridge Road. Based on the described conditions, as well as the fact that proposed facilities are predominantly subsurface and do not include housing or other habitable structures, no impacts related to the placement of facilities within 100-year floodplains that could impede or redirect flood waters, or associated hazards, are anticipated from the proposed project.

r. Inundate the site by seiches, tsunami or mudflow.

The project site is not located within or adjacent to any mapped dam inundation areas, with the closest such designations located approximately 1.5 miles to the west along Escondido Creek in association with Lakes Wohlford and Dixon (County of San Diego 2007). Based on the noted distance and the fact that proposed facilities are predominantly subsurface, no impacts related to dam inundation would result from project implementation. Tsunamis (commonly referred to as tidal waves) are seismic sea waves that can generate impacts related to inundation in coastal zones. Because the project area is located approximately 16 miles inland and between approximately 440 and 955 feet above mean sea level (Ninyo and Moore 2010a), no impacts related to inundation by tsunami are anticipated from project implementation.

Seiches are defined as wave-like oscillatory movements in enclosed or semi-enclosed bodies of water such as lakes or reservoirs, and are most typically associated with seismic activity. Seiches can result in flooding damage and related effects (e.g., erosion) in surrounding areas from spilling or sloshing water, as well as increasing pressure on containment structures. The closest large water bodies to the project site include Lake Dixon, approximately two miles to the north, and Lake Wohlford, approximately 2.8 miles to the northeast. Based on the noted distances and the fact that proposed facilities are predominantly subsurface, no seiche-related impacts would result from project implementation.

Proposed project facilities are not considered susceptible to significant impacts from inundation by mudflow, due to the underground location of proposed pipelines.

IX. LAND USE AND PLANNING

Significance Criteria and Impact Analysis

The effects of a project on existing or planned land uses are considered significant if the proposed project would:

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;*

Abandonment, construction and operation of underground pipelines and the proposed pressure-reducing structure would occur within existing and future rights-of-way or easements; the pipelines would be located underground. The construction and operation of the pipelines would not divide an established community, nor would they conflict with zoning or general plan land use designations. The same is true for the approximately 10-by-20-foot pressure-reducing structure to be built along Mountain View Drive. No land use impacts would occur.

c. *Conflict with any applicable habitat conservation plan or natural community conservation plan;*

As discussed above in Section III, Biological Resources, the portion of the BSA within the City is included in the Draft Escondido Subarea Plan for the MHCP. The unincorporated lands of the County within the BSA are located within the Metro-Lakeside-Jamul Segment of the County's MSCP. For the reasons described in Section III, the project would be consistent with and comply with the terms of the applicable conservation plans.

d. *Have a substantial adverse effect on a scenic vista;*
e. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*
f. *Substantially degrade the existing visual character or quality of the site and its surroundings; or*

The proposed project would consist of installation of underground pipes, an approximately 10-by-20-foot pressure-reducing structure on a similarly sized concrete pad, and various small meters. Although parts of the project area are somewhat scenic, the project would not have a substantial adverse effect on scenic vistas due to the nature of the project elements (e.g., small in stature). Temporary construction-related effects on views could occur near residences and along affected roadway segments during pipeline construction; however, these would not result in significant impacts due to their short-term, temporary nature. Following construction, the locations of the potable water pipeline alignments would be similar to their pre-construction condition and the recycled water alignment would be immediately adjacent to the Ra potable water segment. Scenic vistas would not be degraded as a result of the proposed pipeline installation or pressure-reducing structure construction. There are no state scenic highways in

the project area, nor would the project elements be visible from any such roadways. No significant impacts would occur to scenic vistas, nor would the existing visual quality or character of the site and its surroundings be significantly degraded.

g. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Existing outdoor lighting sources within the project area include those associated with residential uses and generally are of low wattage. Project construction generally would be conducted during daylight hours; however, some activities may occur after dark and night lighting may be required. Nighttime construction lighting, if required, is expected to occur at some intersections and at the Cemetery, and possibly during the final connections phase of construction. The night lighting used would be of the lowest illumination allowed for human safety, and selectively placed, shielded, and directed away from surrounding sensitive receptors. Based on the expected short-term duration associated with such potential conditions, impacts from construction-related night lighting, should it occur, would be less than significant. No impacts from glare would occur.

The proposed pressure-reducing structure is not expected to require night lighting for its operations; however, if emergency or other conditions require temporary night lighting at the structure, associated impacts would be short term and less than significant. Should the pressure-reducing structure require permanent lighting, that lighting would be required to adhere to Section 33-711 of Article 35 (Outdoor Lighting) of the Escondido Municipal Code and Division 9 of the San Diego County Light Pollution Code. Accordingly, impacts associated with operational night lighting, should it be necessary, would be less than significant. No impacts from glare would occur.

X. MINERAL RESOURCES

Significance Criteria and Impact Analysis

The effects of a project on mineral resources are considered to be significant if the proposed project would:

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; or
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.

The project site is located within Aggregate Mineral Resource Classification Zone Category 3 (MRZ-3; County of San Diego 2008). MRZ-3 indicates that significance of mineral deposits cannot be evaluated from available data. The project site has not been used for mineral resource recovery and is not delineated as a mineral resource recovery site on any land use plans. As the project site does not contain any known significant mineral resources, and is not currently used (or planned for use) as a mineral resource recovery site, no impacts related to mineral resources would occur as a result of project implementation.

XI. NOISE

Significance Criteria and Impact Analysis

The effects of a project on noise are considered to be significant if the proposed project would 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;

Construction of the proposed project may potentially create elevated short-term construction noise impacts, particularly from trenching and excavation activities. Construction activities, however, would be temporary and generally limited to daytime hours in accordance with the City of Escondido General Plan Community Protection and Safety Element (City of Escondido 1990) and Chapter 17, Article 12 of the Escondido Municipal Code (Noise Abatement and Control). No project-related construction activities in the vicinity of the Cemetery would be permitted to occur during scheduled burial services at the Cemetery; related impacts would not occur.

Additionally, pipeline construction would proceed at a rate of approximately 50 feet per day, thus minimizing the duration that active pipeline construction would be adjacent to any single household. While noise from nighttime construction may occur during the overnight hours of 6:00 p.m. to 7:00 a.m., it would be confined to the Cemetery and some intersections. Even with the possibility of nighttime construction, it is not expected that residents within and around the project site would be exposed to excessive noise levels for extended periods of time. However, a Variance would need to be obtained from the City Manager in the event that nighttime construction is required. Implementation of the environmental design measures listed below would ensure that noise impacts associated with nighttime-construction are avoided.

Measures implemented to minimize nighttime noise effects would include, but not be limited to, the following:

- During project-related excavation and grading activities, the construction contractor would make sure that all fixed and mobile construction equipment is equipped with properly operating and maintained mufflers, consistent with standards of the manufacturers.
- The construction contractor would place all stationary construction equipment so that emitted noise is directed away from noise sensitive receptors nearest the project alignment.
- No materials hauling or transport would be permitted to occur during the hours identified for nighttime construction (6:00 p.m. to 7:00 a.m.).

b. Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels;

Other than potential blasting, the proposed project does not include components that would result in excessive groundborne vibration. As noted in the Project Description above, granitic rock is

located beneath the proposed alignments, some of which would need to be removed to accommodate project trenching, depending on the depth of trench relative location of the rocks. Possible methods of granitic rock removal would include blasting and/or use of a chemical rock-splitting agent. If blasting is determined appropriate, short-term, intermittent vibrations may be noticeable at adjacent residences and the Cemetery. Blasting-related vibrations could result in potentially significant impacts; however, implementation of the environmental design measures listed below would reduce impacts to less-than-significant levels. In situations where blasting is deemed inappropriate because it is either unsafe or would occur too close to residences or the Cemetery, the use of a chemical rock-splitting agent may be used, which employs a modified concrete to gradually split granitic rock. If a rock-splitting agent is used, it would not result in vibration and no associated impacts would occur. While other equipment in use during construction may result in minor levels of groundborne vibration, these would be temporary, and likely indistinguishable from vibration generated by nearby traffic on area roadways. No impacts associated with groundborne vibration would occur from activities unrelated to blasting or rock splitting.

Measures implemented to minimize blasting requirements and ensure safety would include, but not be limited to, the following:

- Nearby residents would be alerted prior to blasting. Warning signals/sirens would be sounded immediately prior to blasting.
- Blasting would be confined so that the width and depth of the resulting hole is no larger than is necessary.
- The blasting contractor would employ proper stemming[2] in the drill holes to control flyrock[3] and control/eliminate airblast.
- The blasting contractor would avoid blasting that the Project Engineer thinks may potentially endanger the stability of intact rock outside the prescribed limits of excavation/trenching.
- The blasting contractor would prepare daily blasting-related reports that include: Blast Report, Seismograph Monitoring Report, Inspection Report, Blasting Complaint Report, and Pre-blast Inspection Report.
- The blasting contractor would conform to applicable requirements, including the use of certified blasters and an approved powder magazine.
- In situations where blasting is deemed inappropriate for any reason, the use of a chemical rock-splitting agent would be used.

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;

[2] "Stemming" is material placed above the explosive charge in the drill hole and is used to keep the force of the blast from exiting through the drill hole.

[3] "Flyrock" refers to rock ejected from the construction site by the force of the blast.

Construction of the proposed project may potentially create some elevated short-term construction noise impacts, particularly from trenching and excavation activities. Such impacts, however, would not create a substantial temporary or periodic increase in ambient noise levels in the project vicinity, due to the intermittent nature of construction equipment (i.e., operating in brief alternating cycles of full power and low power). Once the proposed pipelines are installed, they would require only limited, periodic maintenance. Limited, periodic maintenance would likely occur at the proposed pressure-reducing structure as well. The level of noise generated by maintenance activities is not expected to be substantially perceptible within the overall noise environment of the project area and would not contribute to significant, long-term noise impacts.

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, significant impact would occur if the project exposed people residing or working in the project area to excessive noise levels; or

f. For a project within the vicinity of a private airstrip, if the project exposed people residing or working in the project area to excessive noise levels.

The proposed project consists of buried pipelines, associated meters, and a pressure-reducing structure and would not contain habitable structures that would result in people being exposed to noise from the Ramona Airport (a public-use airport) or from the airstrip at Lake Wohlford Resort. No associated impacts would occur.

XII. POPULATION AND HOUSING

Significance Criteria and Impact Analysis

The effects of a project on population and housing are considered to be significant if the proposed project would:

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);

The proposed project would not include the construction of housing and/or businesses and thus would not induce a direct increase in the local or regional population. The proposed improvements to the existing potable water system in the East Grove Neighborhood Area of Escondido would not increase the capacity of the existing facilities; rather, the proposed improvements would strengthen the reliability of and increase the pressure of the water delivered within the existing system to better serve the current population. The project also would provide better capability to deliver adequate water supplies and pressure in the event of a fire-related emergency. With the exception of approximately 2,545 linear feet of recycled water pipeline, the proposed project would not cause the extension of any public utilities. The project generally would only improve existing utilities and provide recycled water in the future to the service area. These improvements are not considered indirectly growth inducing. No significant population-growth impacts would occur from implementation of the proposed project.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The proposed project would not displace any existing housing or cause the displacement of substantial numbers of people. No replacement housing would be constructed as a result of project implementation, and no other housing-relate impacts would occur.

XIII. PUBLIC SERVICES
AND
XIV. RECREATION

Significance Criteria and Impact Analysis

The effects of a project on public services are considered to be significant if the proposed project would:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government 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:

1. Fire Protection
2. Police Protection

The proposed project would not have operational impacts to fire or police protection and would not cause a need for new or altered fire or police protection facilities or related infrastructure; however, the construction phase of the project could potentially impact existing services. Impacts to fire protection services could potentially occur on a short-term basis if construction equipment-related fires were accidentally started. The probability for such fires to occur is low, and construction equipment would be outfitted with spark arrestors and other fire-protective measures. Such a potential impact would not result in the need for new or altered facilities. Although there may be short durations where access or through traffic could be blocked it is expected that at least one lane of travel would be maintained at all times; otherwise, a detour could be temporarily established. Emergency vehicles would be allowed access through construction zones and, even if a detour were necessary, given the relatively small size of the community and road network, a detour by emergency vehicles during construction would be short and not expected to affect emergency service providers' ability to provide a timely response to priority calls. Conversely, the main objective and one of the long-term benefits of the proposed project is to increase the capacity and pressure of water deliveries to existing property owners, thereby improving the flow of water for fire-suppression needs in the community. The proposed project would enable the delivery of 2,500 gallons per minute of fire flow, which is the new standard in the City. Accordingly, impacts to fire and police protection would be less than significant.

3. *Schools*
4. *Parks*
5. *Libraries*
6. *Gas/Electric*

The proposed project consists of providing improvements to an existing potable water system in a semi-rural residential community, as well as preparing for future activation of a recycled water pipeline in that community. Implementation of the project would not cause the need for any new or altered schools, parks or playgrounds, libraries, gas or electrical lines. No impacts to these public services would occur.

XV. TRANSPORTATION/TRAFFIC

Significance Criteria and Impact Analysis

According to the City of Escondido Environmental Quality Regulation (Article 47, Sec. 33-924), impacts are considered significant if the project:

a. *Causes the level of service (LOS) of a circulation element street to fall below a mid-range of LOS "D" and/or adds more than 200 ADT to a circulation element street with a LOS below the mid-range "D" yet above LOS "F." According to the Escondido General Plan, the minimum acceptable LOS is "C";*
b. *Exceeds, either individually or cumulatively, a level of service established by the county congestion management agency for designated roads and highways;*

Little to no long-term increase in traffic generation would occur as a result of the proposed project, as only minimal maintenance activity is anticipated for project operations. Aside from work proposed along Rb alignment in proximity to the intersection of Reed Road and Falconer Road, both of which are Circulation Element Local Collector Roads, Mountain View Road is the only Circulation Element road that would be affected by project activities (City of Escondido 2009). Project-related traffic increases that may occur would be temporary and associated with project construction only. Such traffic would be minor, including deliveries of equipment and materials, construction employee travel to and from the work site, and hauling of demolition and excavation material off site, and would not have a significant impact on level of service.

Many of the relatively narrow roadway segments within the project area would be subject to temporary lane closures during pipeline trenching and construction; however, most closures would maintain one lane of travel at all times. If road closures would be necessary, they would last for no more than a few days on the affected road segment, and alternate routes/detours would be established to accommodate diverted traffic. Driveway closures would be kept to a minimum, with blockages likely occurring for no more than a few hours at a time. Residents would be notified well in advance of impending closures or blockages related to project construction. No substantial increases in traffic in relation to the existing low-volume traffic load and capacity of the street system is anticipated following construction.

The intermittent operational traffic and the short-term construction traffic resulting from the proposed project would not exceed, either individually or cumulatively, a level of service standard for designated roads or highways. Based on these factors, less-than-significant impacts would occur as a result of project implementation.

c. Results in a change of air traffic patterns, including either an increase in traffic levels or in a location that results in substantial safety risks or increased hazards due to a design feature;

The proposed project does not include any aviation components or structures where height would be an aviation concern and, therefore, would not affect air traffic patterns. No associated air traffic impacts would occur.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

The proposed project would upgrade an existing potable water delivery system and provide recycled water infrastructure for future activation, and would be located almost entirely underground. No impacts associated with hazardous design features or incompatible uses would occur.

e. Result in inadequate emergency access; or

Improvements to the existing water system and installation of a recycled water pipeline for future activation would not significantly impact current or future emergency access to the community. Emergency access routes to all parts of the surrounding community would be maintained during the temporary construction phase of the project. Local law enforcement agencies, the California Department of Fire, and emergency medical service providers would be notified in advance regarding construction dates and locations. As noted under Section XIII, Public Services, one lane of travel likely would be maintained at all times. Emergency vehicles would be allowed access through construction zones if feasible and, even if a detour were necessary, given the relatively small size of the community and its road network, any detour by emergency vehicles during construction would be short and not expected to affect the emergency service providers' ability to provide a timely response to priority calls. Long-term operations of the proposed project would not result in inadequate emergency access, and no related impacts would occur.

f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

No road or traffic improvements or land use changes which would affect alternative transportation are proposed as part of this project, and no related impacts would occur.

XVI. UTILITIES AND SERVICE SYSTEMS

Significance Criteria and Impact Analysis

The effects of the project on utilities and service systems are considered to be significant if the proposed project would:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

The proposed project would provide improvements to an existing potable water infrastructure system. In addition, the project would provide a relatively short (i.e., approximately 2,545 feet) recycled water pipeline for future activation. Although the future provision of recycled water to the community would be new, none of these infrastructure improvements would result in the exceedance of wastewater treatment requirements. Related impacts would not occur.

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;

The proposed project would result in the expansion of existing City water facilities to provide increased pressure, reliability, and fire-suppression abilities, and future recycled water delivery. Certain elements of the project would result in potentially significant impacts to the environment for the reasons described elsewhere in this document. These potentially significant environmental effects, however, have been mitigated to a level below significance as detailed within these Supplemental Comments. No additional impacts would occur.

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;

The project would not result in new substantial impervious surfaces that would result in additional runoff or the need for new or expanded drainage facilities.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
e. Result in a determination by the wastewater treatment provider which serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

The proposed project would consist of replacing existing potable water pipelines, installing a new recycled water pipeline for future activation, and constructing a new pressure-reducing structure. It would not require new or expanded entitlements for water service, as it would not increase water service capacity to accommodate new users or require construction of new wastewater or expanded wastewater treatment facilities. No related impacts would occur.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or

g. Comply with federal, state and local statutes and regulations related to solid waste.

Minimal solid waste would be generated by the construction of the proposed project. Operation and maintenance of the replacement pipelines, recycled water pipeline, and small pressure-reducing facility would generate very little, if any, solid waste. Project-related impacts to landfills would occur associated with construction, but would be minor and temporary, and thus less than significant.

Both construction and operation of the proposed project would comply with applicable federal, state, and local statutes and regulations related to solid waste, and impacts would be less than significant.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

Potential impacts to the environment as a result of this project are in the areas of Biological Resources and Cultural Resources. As mitigated, the project is not expected to have any significant impacts, either long-term or short-term, nor would it cause substantial adverse effects on human beings, either directly or indirectly. The project would not degrade the quality of the environment for plant or animal communities, substantially reduce the habitat of a fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, nor reduce the number or restrict the range of endangered plants or animals. The project would not eliminate important examples of the major periods of California history or prehistory. As described, the project's impacts would be avoided by incorporation of project design measures, or mitigated to levels below significance, and no cumulatively considerable impacts would occur. Therefore, the proposed project would not have a significant individual or cumulative impact on the environment.

SUMMARY OF DESIGN MEASURES AND MITIGATION MEASURES

Design Measures

Air Quality Design Measures

To minimize air quality impacts during construction, the following control measures would be incorporated into project design.

AQ-1 Off-road construction equipment engines shall utilize a maximum of 75 percent (by horsepower) CARB/EPA Certification Tier 2 and a minimum of 25 percent (by horsepower) Tier 3 or better engines, or other equivalent methods approved by the CARB, to reduce air emissions.

AQ-2 All off-road construction equipment shall be equipped with CARB Verified Level III catalysts or other equivalent methods approved by the CARB, to reduce PM and VOC emissions at least 85 percent.

AQ-3 The project applicant shall prepare and implement a Fugitive Dust Plan per SDAPCD Rule 55 that shall include the following or other measures with the equivalent level of reduction:

- Water shall be applied every three hours to disturbed areas within a construction site.
- Minimum soil moisture of 12 percent during earthmoving activities by use of a moveable sprinkler system or a water truck shall be required. Moisture content can be verified by lab sample or moisture probe.
- Ground cover shall be replaced in disturbed areas as quickly as possible.
- All trucks hauling dirt, sand, soil, or other loose materials shall be tarped with a fabric cover and maintain a freeboard height of 12 inches.
- The maximum speed on unpaved roads shall be limited to 25 miles per hour.
- Chemical dust suppressant shall be applied annually to unpaved parking areas.
- Construction of three-sided enclosures with 50-percent porosity around storage piles shall be required.
- Storage piles shall be watered by hand or cover applied when wind events are declared.
- Chemical soil stabilizers shall be applied on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Vegetative ground cover shall be planted in disturbed areas as soon as possible.

AQ-4 All construction equipment/vehicles shall be maintained properly as per the manufacturer's recommendations.

AQ-5 Truck idling shall be minimized to no more than five minutes.

Hazards and Hazardous Materials Design Measure

To minimize potential impacts associated with encountering or disturbing hazardous materials to less-than-significant levels, the following design measure would be incorporated into project design.

Haz-1 Appropriate references to the potential to encounter contaminated soils and/or groundwater shall be included in construction specifications so that the contractor(s) can consider various factors (e.g., soil disposal, dewatering costs) in their work.

Noise Design Measures

To minimize potential noise and vibration impacts that could occur as a result of nighttime construction and blasting during construction, the following design measures would be incorporated into project design.

Nighttime Construction

- During project-related excavation and grading activities, the construction contractor would make sure that all fixed and mobile construction equipment is equipped with properly operating and maintained mufflers, consistent with standards of the manufacturers.
- The construction contractor would place all stationary construction equipment so that emitted noise is directed away from noise sensitive receptors nearest the project alignment.
- No materials hauling or transport would be permitted to occur during the hours identified for nighttime construction (6:00 p.m. to 7:00 a.m.).

Blasting

- Nearby residents would be alerted prior to blasting. Warning signals/sirens would be sounded immediately prior to blasting.
- Blasting would be confined so that the width and depth of the resulting hole is no larger than is necessary.
- The blasting contractor would employ proper stemming[4] in the drill holes to control flyrock[5] and control/eliminate airblast.
- The blasting contractor would avoid blasting that the Project Engineer thinks may potentially endanger the stability of intact rock outside the prescribed limits of excavation/trenching.
- The blasting contractor would prepare daily blasting-related reports that include: Blast Report, Seismograph Monitoring Report, Inspection Report, Blasting Complaint Report, and Pre-blast Inspection Report.

[4] "Stemming" is material placed above the explosive charge in the drill hole and is used to keep the force of the blast from exiting through the drill hole.

[5] "Flyrock" refers to rock ejected from the construction site by the force of the blast.

- The blasting contractor would conform to applicable requirements, including the use of certified blasters and an approved powder magazine.
- In situations where blasting is deemed inappropriate for any reason, the use of a chemical rock-splitting agent would be used.

Mitigation Measures

Biological Resources Mitigation Measures

To reduce potentially significant impacts to sensitive biological resources to less-than-significant levels, the following mitigation measures are required.

Bio-1 Mitigation for impacts to non-jurisdictional coast live oak woodland (including disturbed) within the City and unincorporated County shall occur at a 2:1 ratio through creation and enhancement of suitable habitat or acquisition of suitable habitat credits at an approved mitigation bank in consultation with the City, County, and resource agencies (Corps, CDFG) prior to clearing, grubbing or grading (Table 1 in Supplemental Comments). Mitigation banks within the North County area include Daley Ranch, Heights of Palo Mesa Conservation Bank, Pilgrim Creek Mitigation Bank, and North County Habitat Bank.

Mitigation for impacts to Diegan coastal sage scrub (including disturbed) within the unincorporated County shall occur at a 1.5:1 ratio while impacts to non-native grassland within the City and unincorporated County shall be mitigated at a 0.5:1 ratio through creation and enhancement of suitable habitat or acquisition of suitable credits at an approved mitigation bank in consultation with the County and resource agencies prior to clearing, grubbing or grading (Table 1 in Supplemental Comments). Mitigation banks within the project vicinity include Daley Ranch, Heights of Palo Mesa Conservation Bank, Pilgrim Creek Mitigation Bank or North County Habitat Bank.

Bio-2 Indirect impacts to sensitive animal species (through loss of habitat) shall be mitigated through implementation of Mitigation Measure **Bio-1**, above.

Bio-3 Unless a pre-grading survey is conducted within three days prior to the initial disturbance, no grubbing, clearing, or grading within 500 feet of occupied Diegan coastal sage scrub during the gnatcatcher breeding season (February 15 through August 31) or tree-nesting raptor breeding season (February 1 through September 15) shall occur. As such, all grading permits, improvement plans, and the final map shall state the same.

If grubbing, clearing, or grading would occur during the gnatcatcher and/or raptor breeding season, a pre-grading survey shall be conducted within three days prior to grading to determine if these species occur within the areas directly impacted by grading or indirectly impacted by noise. If there are no gnatcatchers or raptors nesting (includes nest building or other breeding/nesting behavior) within this area, development shall be allowed to proceed. However, if any of these birds are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until (1) all

nesting (or breeding/nesting behavior) has ceased or until after September 15; or (2) a temporary noise barrier or berm shall be constructed at the edge of the development footprint to reduce noise levels below 60 dB L_{eq} or ambient (if ambient is greater than 60 dB L_{eq}). Alternatively, the duration of construction equipment operation could be controlled to keep noise levels below 60 dB L_{eq} or ambient in lieu of or in concert with a wall or other sound attenuation barrier.

To ensure compliance with the MBTA, clearing of native vegetation shall occur outside of the breeding season of most avian species (March 1 through July 31) unless a pre-grading survey is negative. Clearing during the breeding season of MBTA-covered species (migratory birds that are native to the U.S. or its territories) could occur if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present within three days prior to clearing. As described above, a pre-grading survey shall be conducted to determine if breeding or nesting avian species occur within areas directly affected by grading or indirectly affected by noise. If any of these birds are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until (1) the nest is abandoned or the young have fledged or (2) after July 31.

Bio-4 In areas adjacent to sensitive vegetation, the construction and staging area limits shall be clearly demarcated with temporary construction (orange blaze) fencing under the supervision of a qualified biologist to ensure that construction activity remains within the defined limits of work. This fencing shall be erected prior to commencement of brushing or grading activities and shall demarcate areas where human and equipment access and disturbance from grading are prohibited adjacent to sensitive habitats. All site preparation near these interfaces shall be monitored by a qualified biologist during construction activities. A qualified biologist also shall inspect the demarcated areas during regularly scheduled construction monitoring visits.

Bio-5 The Corps jurisdictional Waters of the U.S., CDFG jurisdictional Waters of the State, and County RPO wetlands within the BSA and adjacent to the project alignment shall be avoided and no impacts shall occur to these jurisdictional areas and County RPO wetlands. The Corps and CDFG jurisdictional areas and County RPO wetlands to be avoided shall be clearly demarcated with temporary construction (orange blaze) fencing under the supervision of a qualified biologist to ensure that construction activity remains outside of these sensitive areas. This fencing shall be erected prior to commencement of brushing or grading activities and shall demarcate areas where human and equipment access and disturbance from grading are prohibited adjacent to sensitive jurisdictional habitat and County RPO wetlands. All site preparation near these interfaces shall be monitored by a qualified biologist during construction activities. A qualified biologist also shall inspect the demarcated areas during regularly scheduled construction monitoring visits.

Cultural Resources Mitigation Measures

To reduce potentially significant impacts associated with encountering or disturbing cultural resources to less-than-significant levels, the following mitigation measures are required.

No significant impacts are anticipated from the proposed pipeline replacement project, but due to the cultural sensitivity of the area, a monitoring program would be implemented for the project to minimize the potential for impacts to occur during project construction. The monitoring program would include the following elements:

CR-1 Prior to implementation of the monitoring, a pre-excavation agreement shall be developed between the appropriate Native American Tribes and the Water Division. Due to the location of the project, both Kumeyaay and Luiseño representatives should be included.

CR-2 The qualified archaeologist and the Native American representatives shall attend the pre-grading meeting with the contractors to explain the requirements of the program.

CR-3 An archaeologist and Native American monitors shall be on site during all brushing and clearing, as well as during grading, trenching, and other ground-disturbing activities that occur within the first three feet below grade, unless otherwise agreed upon by the archaeological Principal Investigator, the Native American representatives, and Water Division staff. During the initial monitoring phase, the archaeological Principal Investigator shall re-evaluate the proposed alignments and identify those disturbance areas which are either in paved roads outside of alluvial areas; on very steep slopes without bedrock outcrops; or in bedrock, and therefore less likely to contain cultural resources. Decisions will be made in the field as to which areas do not requiring monitoring by an archaeologist. Native American monitors, however, shall be on site during all brushing, clearing, and other ground-disturbing activities, as noted above.

CR-4 If cultural resources are encountered, the monitors shall have the authority to temporarily halt or redirect grading/trenching while the cultural resources are documented and assessed. If significant resources are encountered, appropriate mitigation measures must be developed and implemented.

CR-5 If any human remains are discovered, the County Coroner shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains.

CR-6 Recovered artifactual materials shall be cataloged and analyzed.

CR-7 If determined appropriate upon the discovery of cultural resources, a report shall be completed describing the methods and results of the monitoring and data recovery program.

CR-8 Artifacts collected (if any) shall be curated with accompanying catalog to current professional repository standards or the collection will be repatriated to the appropriate Native American Tribe(s), as specified in the pre-excavation agreement.

MATERIALS USED IN PREPARATION OF THIS ANALYSIS

The following materials were used during the preparation of this document. The project-specific technical reports listed below are on file with the City of Escondido and available online.

Project-specific Technical Reports

Affinis Environmental Services (Affinis)

2011 Cultural Resources Survey Report for the Cemetery Area Water Pipeline Replacement Project, Escondido, San Diego County, California. July.

HELIX Environmental Planning, Inc. (HELIX)

2011 Cemetary Area Water Pipeline Replacement Project Biological Technical Report. August 12.

Ninyo & Moore

2010a Geotechnical Evaluation, Cemetery Area Water Pipeline Replacement Project, Escondido, California. March 4.

2010b Hazardous Materials Technical Study, Cemetery Area Water Pipeline Replacement Project, Escondido, California. February 19.

V&A

2010 Soil Corrosivity Investigation for the City of Escondido Cemetary Area Water Pipeline Replacement Project. January 28.

General References

1. Escondido General Plan and Environmental Impact Report 1990
2. Escondido General Plan Update and Environmental Impact Report, 2000
3. Escondido Zoning Code and Land Use Maps
4. Escondido Municipal Code
5. SANDAG Summary of Trip Generation Rates
6. City of Escondido:
    a. Public Works Department
    b. Engineering Division
    c. Traffic Division
    d. Building Division
    e. Fire Department
    f. Police Department
    g. Planning Division
7. FIRM maps (Flood Insurance Rate Maps)
8. Draft MHCP maps (Multiple Habitat Conservation Program)
9. USGS Map for San Diego (Escondido and Valley Center) area
10. County of San Diego Health Department, Hazardous Material Management Division (HMMD) Hazardous Sites List

General References (cont.)

11. County of San Diego General Plan: North County Metropolitan Subregional Plan, Adopted August 3, 2011
12. California Division of Land Resource Protection, San Diego County Important Farmland map, dated 2006
13. U.S. Environmental Protection Agency Watershed Assessment, Tracking Results System, dated 2010
14. Site Visits/Field Inspections
15. Project Description & Preliminary Information

IS CHECKLIST

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below will be potentially affected by this project, involving at least one impact that is "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture & Forestry 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

On the basis of this initial evaluation that follows:

☐ The proposed project is exempt from CEQA pursuant to the general exemption (CEQA Guidelines, 15061 (b)(3)), a statutory exemption, and/or a categorical exemption, and that if a categorical exemption, none of the exceptions to the exemption apply. A NOTICE OF EXEMPTION will be prepared.

☐ 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 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, no further environmental document is required. FINDINGS consistent with this determination will be prepared.

Signature

December 1, 2011
Date

EVALUATION OF ENVIRONMENTAL IMPACTS

This section evaluates the potential environmental effects of the proposed project using the environmental checklist from the State CEQA Guidelines as amended. The definitions of the response column headings include the following:

A. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

B. "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

C. "Less Than Significant Impact" applies where the project creates no significant impacts, only less than significant impacts.

D. "No Impact" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

I. Agriculture and Forestry Resources

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	□	□	□	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	□	□	□	■
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	□	□	□	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	□	□	□	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	□	□	□	■

II. Air Quality

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	□	□	□	■
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	□	□	□	■
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	□	□	■	□

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Expose sensitive receptors to substantial pollutant concentrations?	□	□	■	□
e. Create objectionable odors affecting a substantial number of people?	□	□	■	□

III. Biological Resources

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

IV. Cultural Resources

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	□	■	□	□
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	□	■	□	□
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	□	□	■	□
d. Disturb any human remains, including those interred outside of formal cemeteries?	□	■	□	□

V. Geology and Soils

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	□	□	■	□
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	□	□	■	□

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	□	□	□	■

VI. Greenhouse Gas Emissions

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	□		■	□
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	■	□

VII. Hazards and Hazardous Materials

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	□	□	■	□

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	□	□	■
e. For a project located within an airport land use plan or, where such a plan has not been adopted within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	■
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	■
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	■	□
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	□	□	□	■

VIII. Hydrology and Water Quality

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	□	□	■	□
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	□	□	■	□
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?	□	□	■	□

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?	□	□	■	□
e. Cause significant alteration of receiving water quality during or following construction?	□	□	■	□
f. Cause an increase in impervious surfaces and associated runoff?	□	□	■	□
g. 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?	□	□	■	□
h. Cause potentially significant adverse impact on groundwater quality?	□	□	■	□
i. Cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?	□	□	■	□
j. Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?	□	□	■	□
k. Create or exacerbate already existing environmentally sensitive areas?	□	□	■	□
l. Create potentially significant environmental impacts on surface water quality to either marine, fresh, or wetland waters?	□	□	■	□
m. Impact aquatic, wetland, or riparian habitat?	□	□	■	□
n. Otherwise substantially degrade water quality?	□	□	□	■
o. 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?	□	□	□	■
p. Place within a 100-year flood hazard area, structures which would impede or redirect flood flows?	□	□	□	■
q. 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?	□	□	□	■
r. Inundation by seiche, tsunami, or mudflow?	□	□	□	■

IX. Land Use and Planning

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	□	□	□	■
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	□	□	□	■
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	□	□	□	■
d. Have a substantial adverse effect on a scenic vista?				
e. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	□	□	■	□
f. Substantially degrade the existing visual character or quality of the site and its surroundings?	□	□	□	■
g. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	□	□	■	□

X. Mineral Resources

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	□	□	□	■

XI. Noise

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	□	□	□	■

XII. Population and Housing

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	□	□	□	■

XIII. Public Services

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	□	□	□	■

XIV. Recreation

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	□	□	□	■
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	□	□	□	■

XV. Transportation/Traffic

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	□	□	□	■
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standard established by the county congestion management agency for designated roads or highways?	□	□	■	□
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	□	□	■	□
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	□	□	□	■
e. Result in inadequate emergency access?	□	□	■	□
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	□	□	□	■

XVI. Utilities and Service Systems

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	□	□	□	■

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	□	□	■
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	□	□	□	■
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	□	□	□	■
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	□	□	■	□
g. Comply with federal, state, and local statutes and regulations related to solid waste?	□	□	■	□

XVII. Mandatory Findings of Significance

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	□	□	■	□
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	□	■	□	□

THIS PAGE INTENTIONALLY LEFT BLANK