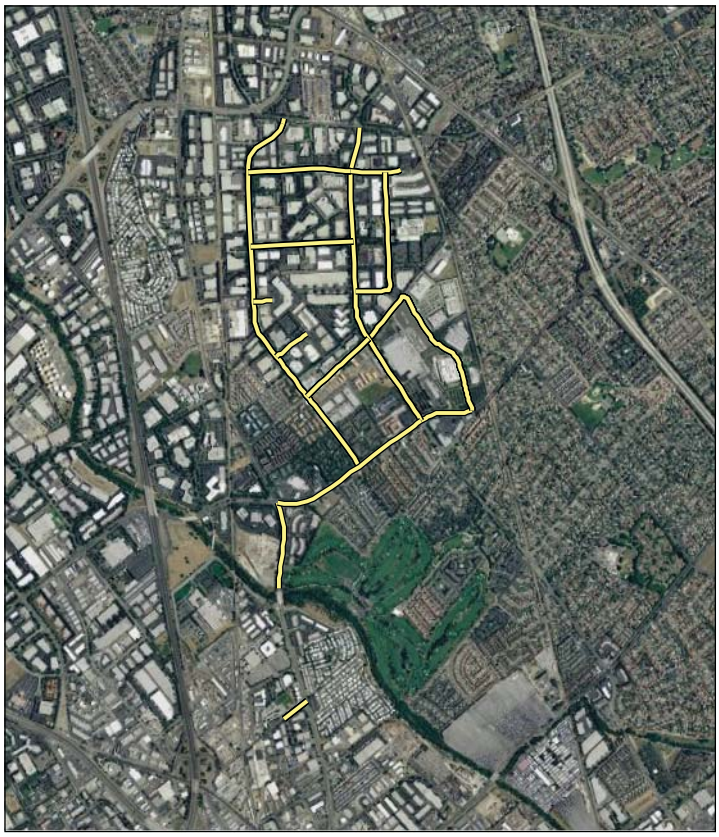

FINAL INITIAL STUDY

SAN JOSE WATER COMPANY

PHASE I RECYCLED WATER PROJECT

FILE NUMBER PP10-089

APRIL 2010

REVISED JUNE 2010

LEAD AGENCY:

City of San Jose
200 East Santa Clara Street
San Jose, CA 95113

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

FINAL INITIAL STUDY
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PHASE I RECYCLED WATER PROJECT
FILE NUMBER PP10-089

APRIL 2010
REVISED JUNE 2010

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SECTION 1.0

INTRODUCTION

1.0 INTRODUCTION

1.1 PURPOSE OF STUDY

This Initial Study has been prepared to examine the potential environmental effects associated with the construction and operation of four near-term extensions to the City of San José South Bay Water Recycling (SBWR) Program's recycled water distribution system (Proposed Project) proposed by San José Water Company (SJWC - Applicant) within its March 2009 Recycled Water Master Plan (RWMP). The Proposed Project would result in the extension of recycled water pipelines to serve typical non-potable uses for recycled water approved under Title 22 of the California Code of Regulations. This Initial Study has been prepared for the City of San José (City - Lead Agency) in accordance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified in California Public Resources Code Sections 21000 *et seq*., and the State CEQA *Guidelines* in the Code of Regulations, Title 14, Division 6, Chapter 3.

This Initial Study identifies potentially significant impacts and where applicable, presents mitigation measures that would reduce all identified environmental impacts to less-than-significant levels. Therefore, as discussed in **Section 4.0**, this Initial Study supports a Mitigated Negative Declaration as defined under CEQA *Guidelines* Section 15070.

1.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the Proposed Project, involving at least one impact requiring mitigation to bring it to a less-than-significant level. Impacts to these resources are evaluated using the checklist included in **Section 3.0**. The Proposed Project was determined to have a less-than-significant impact or no impact without mitigation on unchecked resource areas.

- ☐ Aesthetics
- ☐ Agriculture
- ☒ Air Quality
- ☒ Biological Resources
- ☒ Cultural Resources
- ☐ Geology and Soils
- ☒ Greenhouse Gas
- ☐ Hazards and Hazardous Materials
- ☒ Water Resources
- ☐ Land Use and Planning
- ☐ Mineral Resources
- ☒ Noise
- ☐ Population
- ☒ Public Services
- ☐ Recreation
- ☒ Transportation/Traffic
- ☐ Utility and Service Systems

1.3 TIERING

The purpose of this study is provide a project specific analysis of new recycled water distribution facilities proposed as an addition to the SBWR Program (formerly termed the San José Non-potable Reclamation Project). The City prepared a Final Environmental Impact Report for the San José Non-potable

Reclamation Project in November 1992 (1992 EIR) (SCH #92013071). Since that time, the City has prepared and adopted a number of addenda to the 1992 EIR, listed below:

- Addendum #1 for Diversion Facility – certified August 1995
- Addendum #2 for Golden Triangle Revisions – certified December 1995
- Addendum #3 for Expanded Phase I area – certified April 1996
- Addendum #4 for Miscellaneous Golden Triangle revisions – certified May 1996
- Addendum #5 for Deferred/Infill Projects – certified June 1998
- Addendum #6 for Stage 1 Pipeline Extension – certified November 1999
- Addendum #7 for Additional Santa Clara and Milipitas Pipeline Extensions – certified December 1999
- Addendum #8 for Silver Creek Pipeline – certified September 2001
- Addendum #9 for Central Park (SC-6) Pipeline – certified September 2003
- Addendum #10 for City of Santa Clara Realignment – certified August 2003
- Addendum #11 for San José Infill Extension Projects certified July 2004
- Addendum #12 for SJ/SC (SJ12) Connector and Related Extensions – certified February 2005
- Addendum #13 for Zone 3 Reservoir and Pipeline – certified March 2005
- Addendum #14 for Airport Main (SJ-19) Extension – certified February 2010
- Addendum #15 for Central Park – certified August 2009
- Addendum #16 for Santa Clara Industrial 1 – certified August 2009
- Addendum #17 for Santa Clara Industrial 2 – certified August 2009
- Addendum #18 for Industrial 3A Pipeline Extension – certified November 2009
- Addendum #19 for San José Laterals and Gardens Pipeline Extension – certified December 2009
- Addendum #20 for San José Schools Pipeline Extension – certified February 2010
- Addendum #21 for San José State University Pipeline Extension – certified February 2010

In accordance with CEQA Guidelines Section 15152, this Initial Study tiers off the 1992 EIR and referenced addendums listed above. The 1992 EIR is available for public review at the following address during normal business hours (8 am to 5 pm), Monday through Friday:

City of San José Planning Department
200 East Santa Clara Street
Tower, 3rd Floor
San José, CA 95113-1905

"Tiering" refers to using the analysis of general environmental matters in broad program or planning level (first tier) EIRs with subsequent focused environmental review documents for individual projects that implement the program (second tier). The project level environmental review document incorporates by reference the broader discussions of the first tier environmental document, and concentrates on project-specific issues. CEQA guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished by eliminating repetitive analysis of issues that have been adequately addressed in first tier EIRs and incorporating those analyses by reference. General discussions from first tier EIRs may be referenced in subsequent documents; however, reiterating previously identified impacts and mitigation measures is unnecessary.

1.4 EVALUATION TERMINOLOGY

The following terminology is used to describe the levels of significance for impacts identified for each resource area discussed in **Section 3.0**.

A conclusion of ***no impact*** is used when it is determined the Proposed Project would not adversely impact the resource area under evaluation.

A conclusion of ***less-than-significant impact*** is used when it is determined the Proposed Project's adverse impacts to a resource area would not exceed established thresholds of significance.

A conclusion of ***less-than-significant impact with mitigation*** is used when it is determined that mitigation measures would be required to reduce the Proposed Project's adverse impacts below established thresholds of significance.

1.5 ORGANIZATION OF THE INITIAL STUDY

This document is organized into the following sections:

Section 1.0 – Introduction: Describes the purpose, contents, and organization of the document.

Section 2.0 – Project Description: Includes a detailed description of the Proposed Project.

Section 3.0 – Environmental Impact Analysis: Contains the Environmental Checklist from CEQA *Guidelines* Appendix G with a discussion of potential environmental effects associated with the Proposed Project. Mitigation measures, if necessary, are noted following each impact discussion.

Section 4.0 – Significance Determination: Identifies the determination of whether impacts associated with development of the Proposed Project are significant, and what, if any, additional environmental documentation may be required.

Section 5.0 – List of Preparers

Section 6.0 – References

Appendices – Contains information to supplement **Section 2.0** and **Section 3.0**.

SECTION 2.0

PROJECT DESCRIPTION

2.0 PROJECT DESCRIPTION

2.1 INTRODUCTION

San José Water Company (SJWC - Applicant) proposes to construct, own, and operate four near-term recycled water pipelines and associated user connections identified in its Recycled Water Master Plan (RWMP) for the sale and distribution of recycled water within its existing service area, located within Santa Clara County, California (Proposed Project). Currently, SJWC purchases recycled water from the City of San José (City – Lead Agency) South Bay Water Recycling Program (SBWR), a service operated by the City with cooperation from adjacent cities and sanitary districts. SJWC retails recycled water within its service area in accordance with the Wholesaler – Retailer Agreement between the City and SJWC. Implementation of the Proposed Project would require an amendment to the existing Wholesaler - Retailer Agreement between SJWC and the City. The City's discretionary approval of the amendment to the Wholesaler - Retailer Agreement for the proposed recycled water facilities triggers the need for environmental review pursuant the California Environmental Quality Act (CEQA). Additionally, construction of the proposed facilities will require the City's approval of encroachment permits. This section provides a description of the Proposed Project that serves as the basis for assessment of potential environmental consequences in **Section 3.0**.

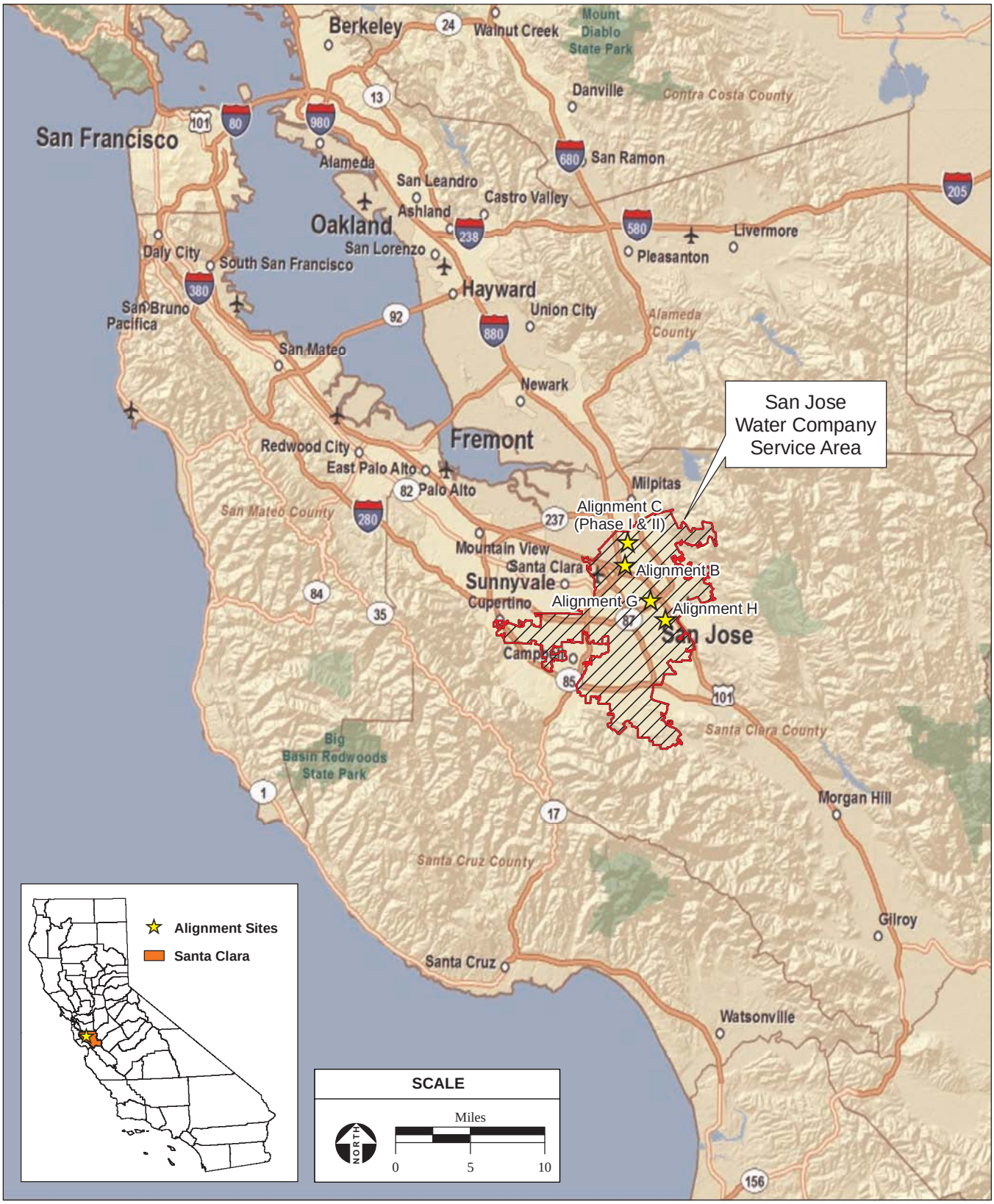
2.2 PROJECT LOCATION

The Proposed Project would result in the construction of four recycled water pipeline alignments which would connect to the existing SBWR recycled water distribution system and extend it within SJWC's existing service area boundaries, located in Santa Clara County, California (**Figure 2-1**). **Figure 2-2** shows the location of the four proposed pipeline alignments evaluated within this Initial Study in relation to the existing SBWR recycled water distribution system. All pipelines would be constructed within existing right-of-ways. The precise location of each alignment is described in **Section 2.5.1**. These alignments may change based on detailed design development, zoning and land use changes, or other factors that guide the continued use of recycled water. The projects and alignments shown in the report are the most probable based on currently available information; additional environmental review will take place if the proposed alignments are significantly altered.

2.3 PROJECT BACKGROUND

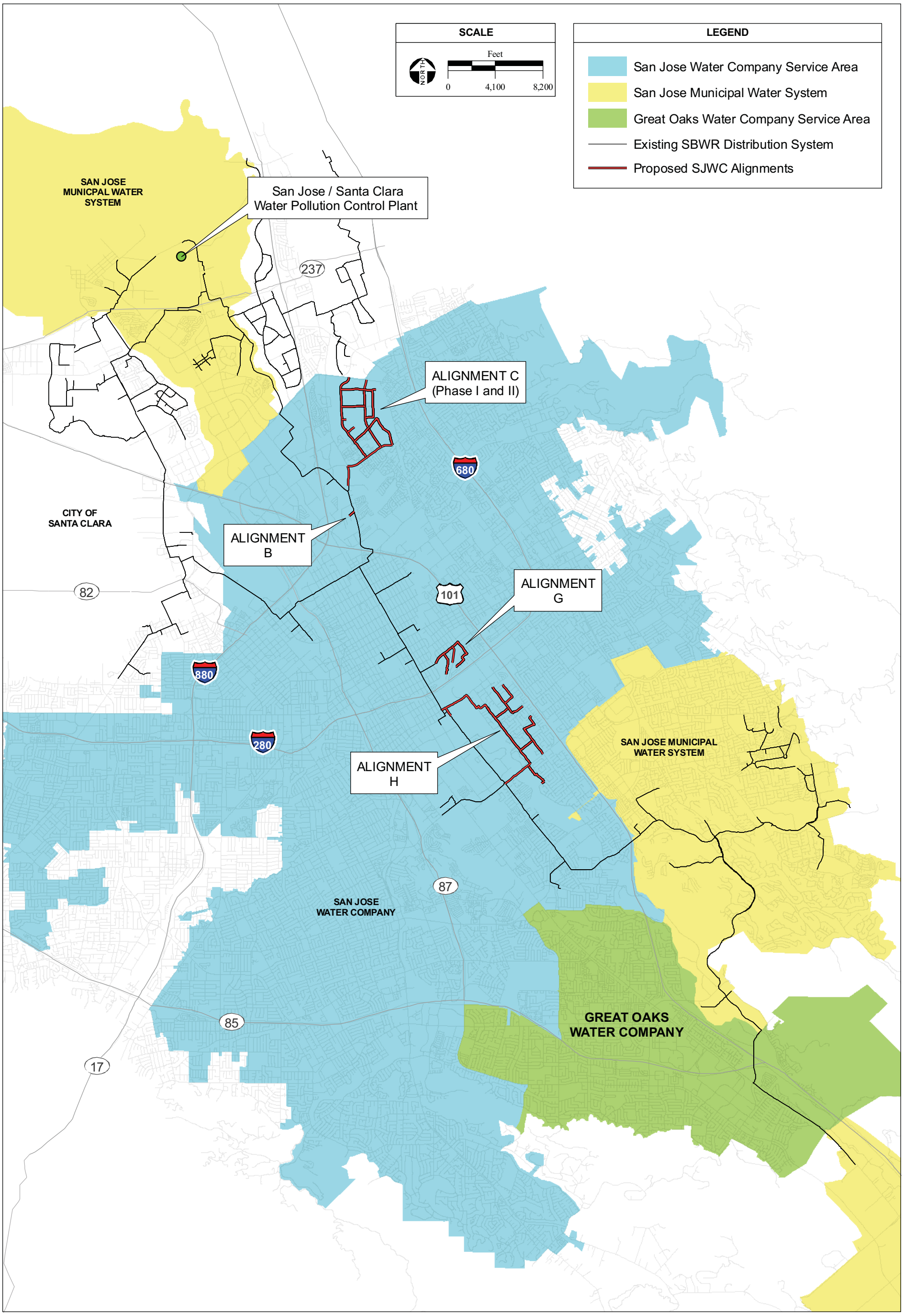
SAN JOSÉ WATER COMPANY

SJWC is an investor-owned public utility that provides water service to over a million people in the cities of San José, Cupertino, Campbell, Saratoga, Los Gatos, Monte Sereno and unincorporated areas of the County of Santa Clara. SJWC relies on four sources of water: imported surface water treated by the Santa Clara Valley Water District (SCVWD), groundwater, surface water, and recycled water from SBWR as described above. **Figure 2-2** depicts SJWC's service area in relationship to the existing SBWR recycled water system.



SOURCE: HydroScience Engineers, 2010; ESRI Server Data, 2010; AES, 2010

Figure 2-1
Regional Location



SOURCE: HydroScience Engineers, 2010; ESRI Server Data, 2010; AES, 2010

Figure 2-2
SBWR Distribution System and Proposed SJWC Extensions

SOUTH BAY WATER RECYCLING PROGRAM

The SBWR program was formed by the City as the Administrative Agency for the San José/Santa Clara Water Pollution Control Plant's (SJ/SC WPCP's) to manage the distribution of recycled water produced by SJ/SC WPCP. In compliance with SJ/SC WPCP's National Pollutant Discharge Elimination System (NPDES) Permit, tertiary treated recycled water is produced to assist in protecting salt marsh habitat by reducing freshwater effluent flows from the SJ/SC WPCP into the brackish wetlands of the South Bay. Another benefit of is the development of a drought-proof supply of water, which augments local and imported water supplies. The SBWR program wholesales approximately 10,000 acre-feet per year (AFY) of disinfected tertiary treated recycled water from the SJ/SC WPCP to water retailers such as the cities of Santa Clara, Milpitas, and San José and to SJWC. The recycled water is used in accordance with Title 22 of the California Code of Regulations for non-potable purposes such as agriculture, industrial cooling and processing, and landscape irrigation. The existing SBWR system consists of the following facilities:

- The SBWR Transmission Pump Station (TPS), which serves as the main pump station providing recycled water to the system;
- A 108-inch diameter diversion pipeline that conveys disinfected tertiary effluent from the SJ/SC WPCP to the SBWR TPS;
- Two distribution system booster pump stations and three storage tanks; and
- Over 100 miles of distribution pipeline.

In 2008, the average recycled water flow in the SBWR system was 9.2 MGD with a maximum of 18.5 MGD (SCVWD, 2009). Currently, the TPS is equipped with capacity to pump a maximum of 40 MGD under normal operating conditions, or 48 MGD with all duty and standby pumps fully operational (SCVWD, 2009).

WHOLESALER-RETAILER AGREEMENT BETWEEN CITY AND SJWC

In 1997, SJWC entered into a Wholesaler-Retailer Agreement (Agreement) with the City to retail recycled water to SJWC's existing and new customers that are nearby SBWR recycled water distribution facilities. The Agreement specifies that SJWC owns the recycled water meter and that all off-site facilities are owned by SBWR. SBWR is responsible for operations, maintenance, water quality, regulatory compliance, and design and construction of all recycled water facilities. The City provided incentives for customers to connect to the recycled water system by paying for the cost of retrofitting the customer's site and providing a discounted rate for recycled water versus potable water.

RECYCLED WATER DEMAND AND GOALS

According to SJWC's 2005 Urban Water Management Plan (UWMP), recycled water represents approximately 1% of the total water demand and expectations are for SJWC's total recycled water demand to increase from 1,101 AFY in 2000 to 3,038 AFY in 2030. Since the development of the 2005 UWMP, Bay Delta environmental concerns and drought conditions have intensified the need to offset potable demand with recycled water usage. These conditions have raised concerns related to local water supply limitations under the influence of circumstances that reduce imported water availability. The City

has set a goal for the SBWR Program of 45,000 AFY of recycled water demand by 2022 as part of the "San José Green Vision" goals established in 2007. SCVWD has targeted a goal of 42,000 AFY by 2020, which represents 10% of the total water supply for Santa Clara County. To meet these goals and address water supply challenges, SCVWD, the City, and SJWC have been coordinating to make effective use of the local and sustainable water resource of recycled water.

SJWC, in cooperation with SCVWD and other regulatory agencies, has issued notice in response to the SCVWD's call for 15% mandatory conservation through June 2010. SJWC has worked with the California Public Utilities Commission (CPUC) to develop its water conservation plan. The CPUC has approved SJWC's plan and the rules that became effective on August 12, 2009.

RECYCLED WATER MASTER PLAN

In March 2009, SJWC completed a RWMP that identifies short-term and long-term goals with regard to recycled water development and use within its service area. The RWMP indentified potential recycled water customers, estimated recycled water demands, and identified potential distribution system alignments. Build out of SJWC's RWMP would result in the extension of approximately 80 miles of recycled water pipelines to serve typical non-potable uses for recycled water approved under Title 22 of the California Code of Regulations (Division 4, Chapter 3). Construction of the direct connections and pipeline alignments in the manner described in the RWMP would allow SJWC to achieve its recycled water supply projections outlined in the 2005 UWMP through the year 2030.

Seventeen alignments were identified and considered within the RWMP. The alignments are predominantly near- to medium-term alignments, and some have the ability to be extended to other areas in the long-term. Potential issues, including creek crossings, freeways, and local railway systems, were taken into consideration when routing pipeline alignments. Although the RWMP contemplates the future use of recycled water for groundwater recharge to meet potable water demands, there are currently no immediate plans for implementation of this future component of plan. Near term recycled water pipeline alignments identified within the RWMP are included within the scope of analysis of this Initial Study, as described in more detail in **Section 2.5**.

2.4 PROJECT OBJECTIVES

The Lead Agency and Applicant have identified the following objectives for the Proposed Project:

- Contribute in meeting the City's goal of 45,000 AFY of recycled water demand by 2022 as part of the "San José Green Vision" goals established in 2007;
- Offset potable demand with recycled water usage to address Bay Delta environmental concerns and drought conditions;
- Assist in meeting SJWC UWMP's recycled water use target of 3,038 AFY in 2030 to ensure a reliable water supply;
- Take advantage of cost-sharing opportunities to reduce the capital cost borne by rate payers and result in mutually beneficial recycled water usage.
- Assist the SCVWD in meeting its long-term water supply goals;

- Optimize use of available funds by constructing the most cost-effective recycled water projects first;
- Make efficient use of existing public facilities in order to reduce infrastructure costs;
- Make efficient use of infrastructure investments to facilitate long-term goals for water management in the region;
- Implement project elements that avoid or minimize adverse impacts to biological resources, including riparian habitats, habitats supporting sensitive plant or animal species, and to archaeological/historic sites; and
- Implement project elements that avoid or minimize adverse impacts to existing and planned land uses.

2.5 PROJECT DESCRIPTION

2.5.1 PROJECT COMPONENTS

Amendment to Wholesaler - Retailer Agreement

Implementation of the Proposed Project requires an amendment to the existing Wholesaler - Retailer Agreement between the City and SJWC. The proposed amendment would allow SJWC to construct alignments that would be owned and operated by SJWC. Currently, SJWC only owns recycled water meters and is not directly responsible for the operations and maintenance of other infrastructure associated with the SBWR system. The amendment would allow SJWC to own, operate, and maintain recycled water infrastructure that is funded by SJWC and developers within SJWC's service area.

Phase I Recycled Water Pipeline Alignments

Implementation of the Proposed Project would result in the construction of four near-term recycled water pipeline alignments and associated user connections proposed within the RWMP: Alignment G, Alignment H, Alignment B, and Phases 1 and 2 of Alignment C. A brief description of each proposed pipeline alignment is provided below, while **Table 2-1** (page 2-8) summarizes the key components of each. All pipelines would be located within existing right-of-ways. Creek crossings for recycled water pipeline alignments would be accomplished via directional drilling, jack and bore methods, and/or suspension from existing structures. ~~A permit from the~~ In accordance with the SCVWD's Water Resource Protection Ordinance, SCVWD review and permitting may ~~would~~ be required for ~~each~~ creek crossings or other areas of the pipeline alignment in the event that work takes place within District owned property, easement, or facilities~~depending on the land ownership and in accordance with Ordinance 06.1.1~~.

Alignment G – East William Street

Alignment G would extend from an existing 6-inch SBWR pipeline along East William Street across Coyote Creek, south on McLaughlin Avenue, east on Appian Lane, and finally southwest on Melbourne Boulevard (**Figure 2-3**). The proposed alignment would also extend from East William Street south on South 19th

SOURCE: HydroScience Engineers, 2010; ESRI Server Data, 2010; AEX Aerial Photograph, 6/15/2006; AES, 2010

Figure 2-3

Alignment G - Proposed and Optional

TABLE 2-1
PROPOSED RECYCLED WATER PIPELINE ALIGNMENTS

Construction Timing	Pipeline Alignment		Linear Feet (LF) of Pipeline	Number of User Connections	Estimated Recycled Water Demand (AFY)
2010	**Alignment G: E. William St.**		7,600	5	116
2010	**Alignment H: Tully Rd.**		~~20,600~~23,800[b]	22	381
2011	**Alignment B: Gish Rd.**		600	1	15
2011	**Alignment C: Oakland Rd.[a]**	Phase 1	20,000	51	231
2011		Phase 2	15,300	30	137
	Total		**~~62,900~~67,300**	**109**	**880**

Note: [a] Phase 3 of Alignment C is not within the scope of this Initial Study.
[b] Assumes connection option number 2 (see below).
Source: RWMP, 2009

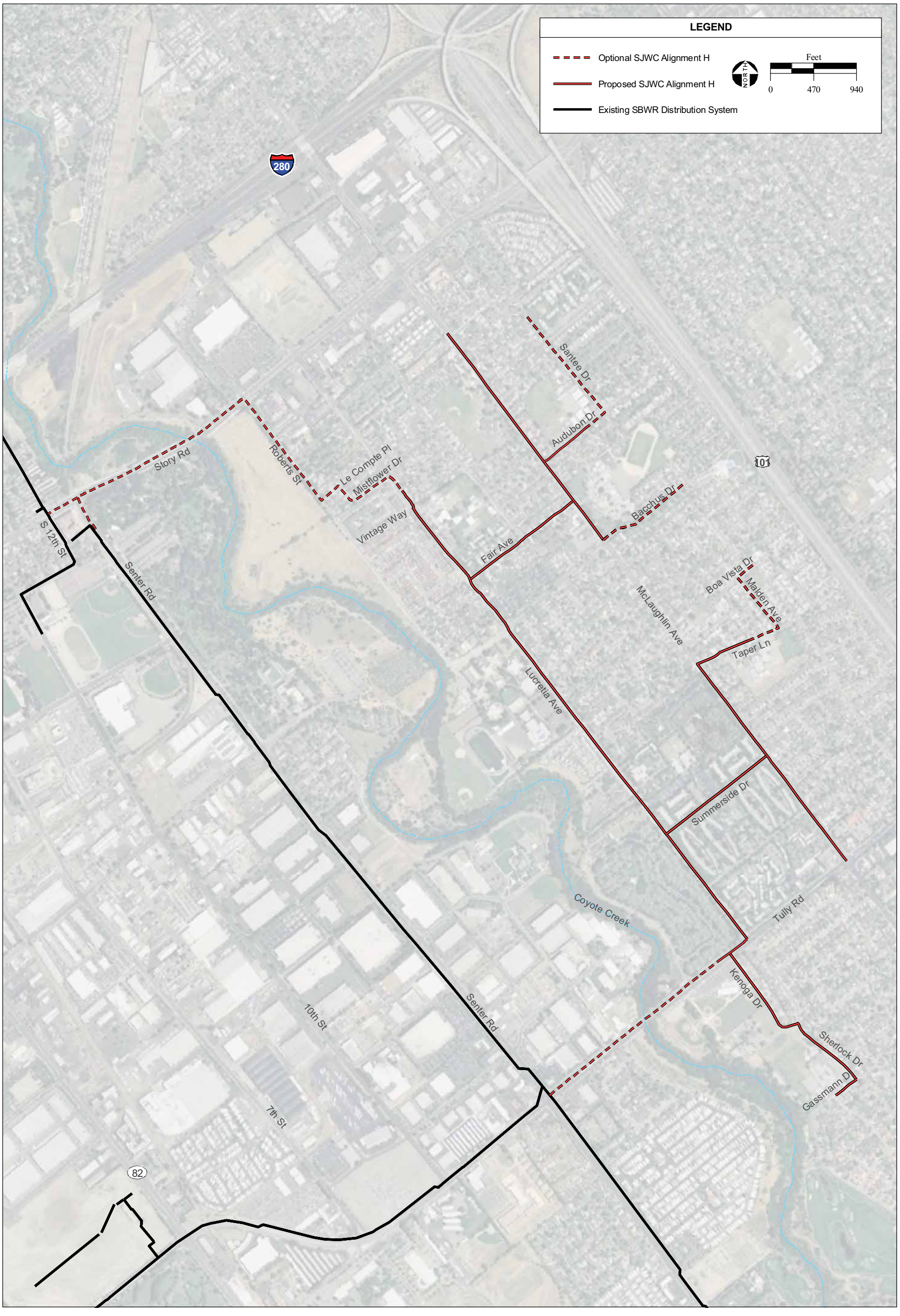
Street and along Woodsborough Drive. Alignment G would provide recycled water to supply two parks, two schools, and a commercial property with a total estimated demand of 116 AFY. This alignment is expected to be constructed in a single phase. The total length of Alignment G would be approximately 7,600 LF, with pipeline diameters ranging from 4- to 6-inches.

Optionally, instead of continuing east on East William Street, the pipeline could extend south on South 22nd Street from East William Street to provide recycled water to McKinley School and Martin Park. This optional alignment would reduce the total length of the pipeline to 5,800 LF.

Alignment H – Tully Road

Alignment H would use one of three connection options, described below, to supply recycled water ~~extend northeast along Tully Road from an existing 42-inch SBWR pipeline at the intersection of Senter Road and Tully Road. The pipeline would then extend northwest~~ along Lucretia Avenue~~-~~ and Tully Road~~to Thelma Way~~. Alignment H includes three extensions from the pipelines on Tully Road and Lucretia Avenue. A lateral would extend from: 1) Tully Road southeast along Kenoga Drive and Sherlock Drive then southwest along Gassmann Drive; 2) Lucretia Avenue northeast along Summerside Drive then both northwest and southeast along Mclaughlin Avenue and northeast along Taper Lane; 3) Lucretia Avenue northeast along Fair Avenue then both northwest and southeast along Mclaughlin Avenue and northwest on Audubon Drive. This Alignment would supply an area roughly bordered by Story Road to the north; Highway 101 to the east; Coyote Creek to the west; and Capitol Expressway to the south (**Figure 2-4**). Alignment H would require crossing Coyote Creek. The estimated demand for the 22 potential users identified in the area was 381 AFY. This alignment is expected to occur in a single phase. The total length of this pipeline would be approximately ~~20,600~~18,200 LF, with pipeline diameters ranging from 4- to 16- inches.

Optionally, Alignment H could extend to seven other potential users, which have an estimated demand of 74 AFY. Construction of these~~is~~ optional extensions would increase the total length of the pipeline ~~to 24,700~~by approximately 4,100 LF.



SOURCE: HydroScience Engineers, 2010; ESRI Server Data, 2010; AEX Aerial Photograph, 6/15/2006; AES, 2010

Figure 2-4
Alignment H - Proposed and Optional

The three connection options include:

1. Connecting to a 42-inch SBWR pipeline at the intersection of Senter Road and Tully Road, using approximately 2,400 LF of pipeline.
2. Connecting to a 42-inch SBWR pipeline along Senter Road, using approximately 5,200 LF of pipeline. The pipeline would then extend northeast along Story Road, southeast along Roberts Street, northeast along Le Compte Place, where it follows Mistflower Drive to Lucretia Avenue.
3. Connecting to a 42-inch SBWR pipeline at the intersection of Keyes Street and South 12th Street using approximately 5,100 LF of pipeline. The pipeline would then extend northeast along Keyes Street, which turns into Story Road, southeast along Roberts Street, northeast along Le Compte Place, where it follows Mistflower Drive to Lucretia Avenue.

Alignment B – Gish Road

Alignment B would extend southwest along Gish Road from an existing 42-inch SBWR pipeline within Oakland Road and serve a school with an estimated demand of 15 AFY (**Figure 2-5**). Construction of this alignment is expected to occur in a single phase. The total length of this pipeline would be 600 LF, with a 4-inch pipeline diameter.

Alignment C – Oakland Road

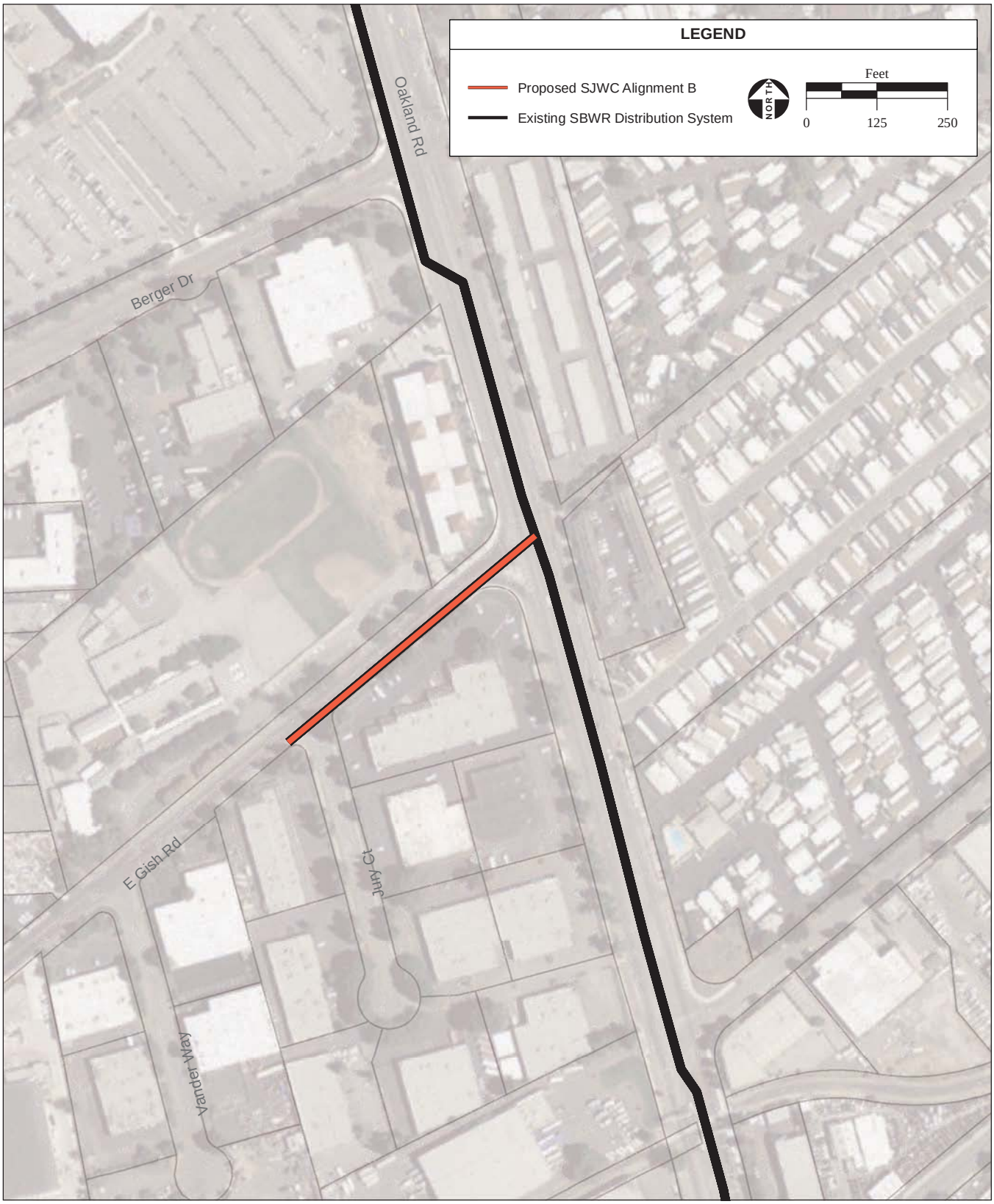
Alignment C would serve the Lundy Industrial Park area of North San José. The construction of this alignment is expected to occur in three phases. Only Phases I and II of Alignment C are included within the scope of this Initial Study. Phase I of Alignment C would extend from an existing 30-inch SBWR pipeline on Oakland Road. The pipeline would continue north on Oakland Avenue, east on Murphy Avenue, and north on Ringwood Avenue to Trade Zone Boulevard. Three laterals would extend along McKay Drive, Concourse Drive, and Fortune Drive from the proposed pipeline on Ringwood Avenue east to Lundy Avenue. Laterals would also be constructed along Corporate Court and Ringwood Court, two cul-de-sacs off Ringwood Avenue. Phase II of Alignment C would extend the pipeline along Lundy Avenue with laterals extending along Automation Drive and Qume Drive (**Figure 2-6**). The service area generally includes areas north of Murphy Avenue/Hostetter Road, areas south of Trade Zone Boulevard, and between the railroad tracks to the east and west. Phases I and II of Alignment C would serve approximately 81 potential users with an estimated demand of 368 AFY. The total length of this pipeline would be 35,300 LF, with pipeline diameters ranging from 4- to 18- inches.

Recycled Water Use

Regulatory Requirements

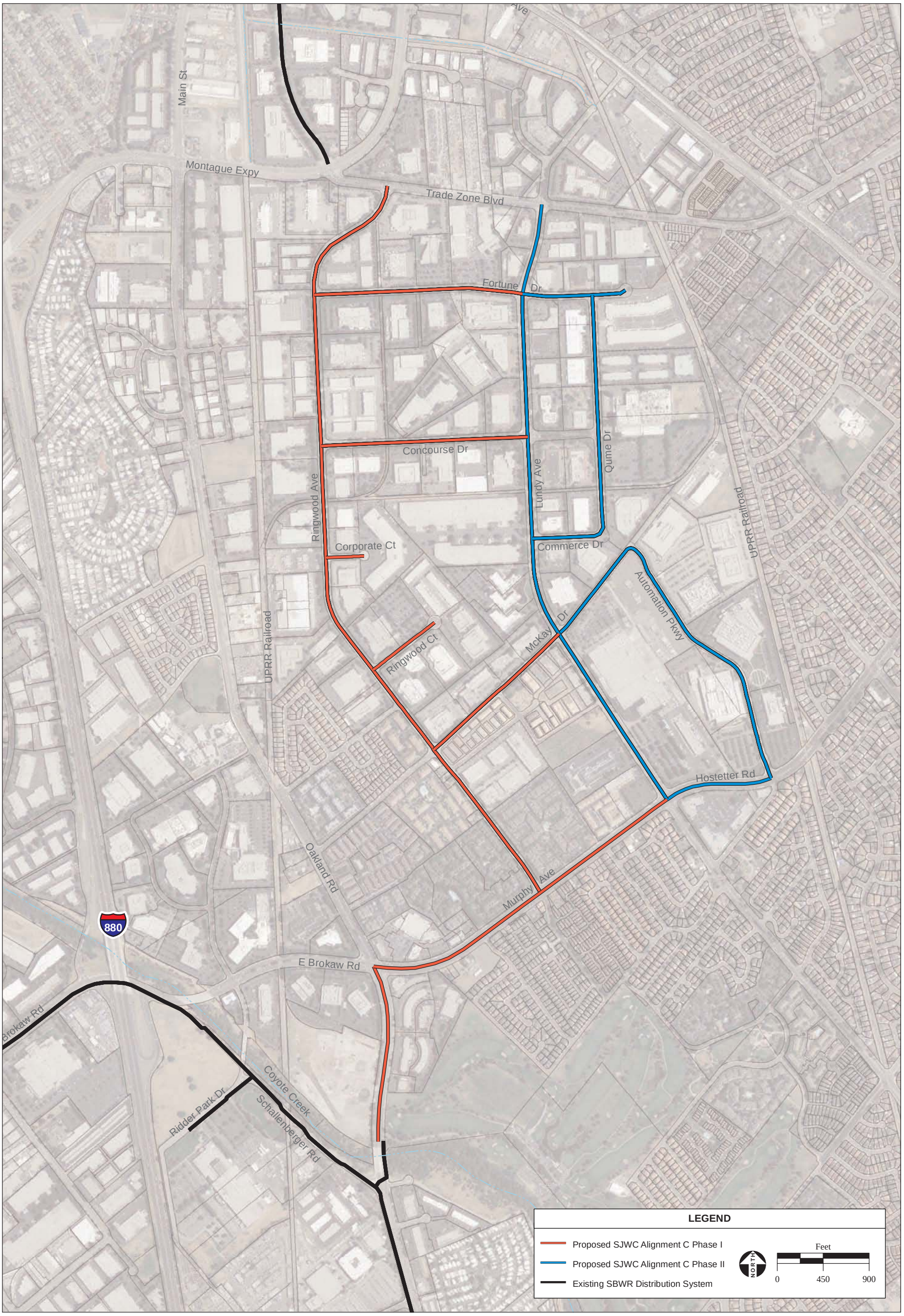
Water recycling criteria is defined in Title 22 of the California Code of Regulations (Division 4, Chapter 3). All on-site recycled water reuse facilities would be designed to comply with California Department of Public Health (CDPH) standards. The primary design requirements include:

- Verifying that there are no cross-connections between potable and recycled water facilities;
- Installing signage that informs the public that recycled water is used onsite;



SOURCE: HydroScience Engineers, 2010; ESRI Server Data, 2010;
AEX Aerial Photograph, 6/15/2006; AES, 2010

Figure 2-5
Alignment B - Proposed



SOURCE: HydroScience Engineers, 2010; ESRI Server Data, 2010; AEX Aerial Photograph, 6/15/2006; AES, 2010

Figure 2-6

Alignment C (Phase I and II) - Proposed

- Locating recycled water pipelines in separate trenches complying with minimum separation requirements from other water pipelines; and
- Labeling of recycled water pipes, valves, boxes, and sprinkler heads with tags or purple coloring identifying them as recycled water components. All services planning to use and using recycled water generated from South Bay Water Recycling will be subject to review and approval of the South Bay Water Recycling Program to assure compliance with CDPH, Title 22, and the Regional Water Quality Control Board.

In order to reuse recycled water in California, a master reclamation permit is required. The RWQCB typically issues this permit, and delegates the responsibilities for reviewing reclamation uses and permit administration to the CDPH. SBWR currently holds a master reclamation permit for the use of recycled water within the SJ/SC WPCP collection service area.

RWQCB South Bay Water Recycling Program Water Reclamation Requirements (Order 95-117)

The recycled water produced by SBWR meets all of the Title 22 standards for unrestricted reuse. Thus, it can essentially be used on areas that are accessible to the public for all non-potable purposes that are approved by Title 22.

In addition to the water quality requirements, there are a number of operational, use area, and reporting items applicable to recycled water that are identified in Title 22. However, it is not expected that any of these requirements will limit the viability of recycled water use for landscape irrigation projects mentioned in the RWMP. These requirements are typical for any recycled water use application. All uses of recycled water would have to be approved by CDPH. Because disinfected tertiary recycled water is produced, there would be no issues associated with the intended uses described below.

Types of Recycled Water Use

This section describes the anticipated uses of recycled water that may occur under the Proposed Project and the associated requirements. SBWR will be responsible for permit and regulatory compliance as defined in the Wholesale – Retail Agreement with the SJWC. All recycled water use resulting from the Proposed Project would occur in accordance with Title 22 of the California Code of Regulations. Allowable uses for disinfected tertiary recycled water under Title 22 that could occur under the Proposed Project are listed in below.

- Food crops;
- Parks and playgrounds;
- School yards;
- Residential landscaping;
- Golf courses;
- Any other irrigation uses not prohibited by other provisions of the California Code of Regulations;
- Cemeteries;
- Freeway landscaping;
- Ornamental nursery stock and sod farms;
- Pasture for milk animals;
- Nonedible vegetation;
- Non-restricted recreational impoundments, with supplemental monitoring for pathogenic organisms;
- Restricted recreational impoundments and publically accessible fish hatcheries;
- Landscape impoundments without decorative fountains;

- Industrial or commercial cooling or air conditioning;
- Flushing toilets and urinals;
- Priming drain traps;
- Industrial process water;
- Structural and nonstructural fire fighting;
- Decorative fountains;
- Commercial laundries;
- Consolidation of backfill material around potable water pipelines;
- Artificial snow making for commercial outdoor uses;
- Commercial car washes not done by hand and excluding the general public from the washing process;
- Industrial boiler feed;
- Backfill consolidation around nonpotable piping;
- Soil compaction;
- Mixing concrete;
- Dust control on roads and streets;
- Cleaning roads, sidewalks, and outdoor work areas; and
- Flushing Sanitary sewers.

A detailed discussion of the anticipated uses for recycled water that would occur under the Proposed Project is included below.

Irrigation Use

All potential recycled water customers were selected based on the ability to utilize recycled water exclusively for Title 22 approved landscape irrigation uses for non-single family residences. Typically, these sites include golf courses, parks, schools, multi-family dwellings, and business developments with large landscaped areas. Nonresidential or multi-family residential parcels with common area irrigation are best suited for recycled water use, since knowledgeable landscape maintenance staff is responsible for operating and maintaining the irrigation system in accordance with Title 22 requirements.

Each irrigation site utilizing recycled water is required by CDPH to be inspected annually and monitored by a site supervisor. The operation of these facilities would comply with all existing SBWR Rules and Regulations, which among other things, prohibit excessive unauthorized runoff, overspray, and ponding. Water fountains and designated outdoor eating areas will be protected from spray, mist, and runoff. All drinking water fountains will be connected to a separate domestic water supply pipeline and will not be connected to any recycled water lines. Where potable and recycled water lines are in close proximity, the separation of these lines shall comply with horizontal and vertical requirements as described in the Waterworks Standards – Chapter 14 – Article 3 - Section 64572: Water Main Separation, Revised February 7, 2008. Additionally, to reduce unauthorized runoff and ponding, the sites will be irrigated at agronomic rates. Irrigation systems will also be designed to prevent irrigation of recycled water within 50 feet of any domestic water supply wells.

It is recommended that all unsupervised irrigation with recycled water be conducted between the hours of 9:00 pm and 6:00 am. The purpose of the use of recycled water during this period is to ensure that irrigation in areas accessible to the public is conducted when the public is least likely to be present. Advisory signs will be placed where they can be easily seen. To the extent necessary to advise passersby, signs will be posted at the property line near crosswalks, at driveway entrances, at outdoor eating areas, or as needed.

Dual-Plumbed Use

Dual-plumbed use areas are defined as areas where recycled water is proposed for use inside a building or for single-family residential landscape irrigation where potable water is also present. Currently, there are two customers within SJWC's service area, City Hall and the County Crime Lab, which utilize recycled water for toilet and urinal flushing. The Martin Luther King, Jr. Library is currently in the process of renovating their systems to include dual-plumbed use; while the recent expansion to the Mineta International Airport has been constructed with dual-plumbing and is anticipated to use recycled water for toilet and urinal flushing upon completion. Due to the high cost to retrofit existing sites for this type of usage, any new dual-plumbed usage resulting from the Proposed Project is assumed to occur in new developments. Should new developments desire to use recycled water, they would be required to prepare a Title 22 dual-plumbed engineering report detailing how the property meets all standards for separation, cross-connection control, maintenance, operation, as well as signing and labeling.

Cooling/Industrial Use

Two existing customers within SJWC service area, San José State University and the County Crime Lab, currently utilize recycled water for cooling tower makeup. The Mineta International Airport is also equipped to use recycled water for cooling when it becomes available to them. SBWR has begun the "Cooling Tower Initiative," to encourage and facilitate companies in retrofitting their cooling towers to use recycled water. The goal of this initiative is to increase the use of recycled water for cooling by 1000 acre feet in 2010, and continue to increase cooling usage thereafter.

Because recycled water conversions of cooling towers are being pursued by SBWR as an immediate goal, a reasonable outcome of the Proposed Project is the increased use of recycled water for cooling/industrial use. In particular, Alignment C would construct new recycled water pipelines near several potential high demand cooling towers that SBWR will proactively work with to connect when recycled water becomes available (City of San José, 2010b). Individual Title 22 Dual Plumbed Engineering Reports are required for these types of uses.

2.5.2 CONSTRUCTION ACTIVITIES

Project components would be designed and constructed in accordance with applicable provisions of the American Water Works Association (AWWA) Standards, California State Building Code (CBC), and the Uniform Building Code (UBC). Components of the Proposed Project would require general construction activities including grading, excavating, trenching, pipe installation, placement of backfill, and asphalt patching. The following discusses the specific construction activities for each component necessary to implement the Proposed Project:

Recycled Water Pipelines

Four potential methods might be utilized to construct pipelines: trenching, suspension from existing structures, jack and bore tunneling, or, directional drilling. The proposed pipelines would be installed underground, beneath existing roadways.

Trenching

In areas without sensitive biological resources, pipelines would be constructed using open cut trenching. Open cut trenching requires clearing of the pipeline alignment, saw cutting pavement where necessary, excavation of the trench, pipeline installation, backfill operations, and re-paving where necessary.

Estimated trench width for a 12-inch-diameter pipeline would be approximately 24 inches and the trench depth would be vary as needed to clear other utilities and be a minimum of 30-inches of cover from finish grade unless approach to creek crossings necessitates a shallower installation with appropriate accommodations. These dimensions would vary with location and diameter of the pipeline. Depending on site conditions or terms of the encroachment permit, trenches would be secured at the end of each workday by either covering with steel plates, backfill material, or installing barricades to restrict access. If the area were paved prior to construction, a trench patch or covering would be used.

Jack and Bore Tunneling and Directional Drilling

Jack and bore tunneling or directional drilling would be utilized for installing underground pipelines for short distances without disturbing the ground surface. This method would be utilized in areas where trenching methods are not feasible due to limited space, the presence of sensitive biological resources (i.e stream crossings and riparian areas), geotechnical conditions, or other environmental constraints. Jack and bore tunneling involves advancing a horizontal boring machine in a tunnel bore to remove material ahead of the pipe. In the directional drilling method, a small diameter hole is directionally drilled using a horizontal drill rig, and is then enlarged to a diameter that would accommodate the pipeline. Pipeline installation by these methods would require approximately one to two weeks per waterway or sensitive area crossing.

Surface Restoration

Surface restoration techniques would be employed after segments of pipeline construction are completed. In most cases this would involve repaving of roadways. If required by the encroachment permit, an asphalt overlay, slurry seal, or chip seal may be utilized. Roadways would be restored to pre-project conditions and unpaved areas would be restored by planting grasses and native vegetation.

Staging Areas

If available, staging areas would be utilized in areas near construction sites to store pipe and other materials, construction equipment, and other necessary items. Short-term temporary easements for staging areas would be negotiated by contractors prior to construction. Staging areas would typically be located every three miles along the pipeline alignment. The duration of use for each staging area is estimated to be between 2 to 6 weeks. These areas will be located in previously disturbed areas where sensitive biological resources are not present.

Construction Equipment

Energy efficient construction equipment would be utilized to the extent feasible. The following equipment may be utilized during construction of the project:

- Tunnel boring machine
- Pavement saw
- Jack hammers
- Excavators
- Front-end loaders
- 10-wheel dump trucks
- Crane
- Bulldozers
- Water truck
- Trench shields
- Air compressors
- Flat-back delivery truck
- Concrete trucks
- Sweepers
- Road grader
- Paving equipment: back hoe, asphalt hauling trucks, compactors, paving machine, rollers
- Concrete pumper trucks
- Welding trucks
- Side boom pipe handler tractor
- Earth mover

2.5.3 Operation and Maintenance Activities

Periodic maintenance of recycled water pipelines, and appurtenant structures would be required after the Proposed Project is operational. Pumps, piping, valves, and appurtenant structures would be checked and maintained regularly, and replaced as necessary. SJWC staff would inspect components of the Proposed Project regularly, and replace equipment that reaches the end of its lifetime or fails during use. Pipe materials, valves, depth of cover, maintenance, and corrosion protection measures will comply with the respective City and SBWR Specifications and Practices.

2.5.4 Schedule

Table 2-1 (refer to **Section 2.5.1**) outlines the anticipated schedule for construction of the four alignments; however, the precise timing is unknown and would be contingent on a variety of factors, including funding, and potential users.

2.6 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

As part of implementation of the proposed project, the following permits and approvals may be necessary:

City of San José

- Adoption of this Initial Study/Mitigated Negative Declaration under the requirements of CEQA.
- Adoption of a Mitigation Monitoring and Reporting Plan that incorporates the mitigation measures identified in this document.
- Approval of proposed amendment to the Wholesaler-Retailer Agreement between the City and SJWC.
- Encroachment Permits and or temporary easements for pipeline construction and staging areas within City right-of-ways.
- Approval of points of connection, pressure, flow, and ongoing use will be subject to SBWR's review and approval of engineering reports, plans and annual reports prepared and submitted by SJWC.
- Approval of all subsequent uses of recycled water by the City as the Master Permit Holder of the NPDES permit issued by the RWQCB.

REGIONAL WATER QUALITY CONTROL BOARD

- General Construction Storm Water NPDES Permit.
- Enforcement of Waste Discharge Requirements for effluent disposal.

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

- Review of engineering report(s) for recycled water use.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

- Encroachment Permit for pipeline construction under or within the right-of-way of facilities within its jurisdiction.

SANTA CLARA VALLEY WATER DISTRICT

- ~~Encroachment permits for pipeline crossings at Coyote Creek.~~ Review and permitting may be required for creek crossings or other areas of the pipeline alignment in the event that work takes place within District owned property, easement, or facilities

SECTION 3.0

ENVIRONMENTAL ANALYSIS (CHECKLIST)

3.0 ENVIRONMENTAL ANALYSIS (CHECKLIST)

3.1 EVALUATION OF ENVIRONMENTAL IMPACTS

Pursuant to California Environmental Quality Act (CEQA) *Guidelines* Section 15063, an initial study should provide the lead agency with sufficient information to determine whether to prepare an environmental impact report (EIR) or negative declaration (ND) for a proposed project. The CEQA Guidelines state that an initial study may identify environmental impacts by use of a checklist, matrix, or other method, provided that conclusions are briefly explained and supported by relevant evidence. If it is determined that a particular physical impact to the environment could occur, then the checklist must indicate whether the impact is Potentially Significant, Less Than Significant with Mitigation, or Less Than Significant. Findings of No Impact for issues that can be demonstrated not to apply to a proposed project do not require further discussion. The right-hand column in the checklist lists the source(s) for the answer to each question.

3.2 AESTHETICS

3.2.1 SETTING

Urban buildup, with rolling hills to the east and south, and coastal mountains to the west, define the aesthetic character of the City of San José. Scenic Corridors within the City, as designated by the General Plan, include State Route 87 and US Route 101.

The development of the new SJWC recycled water conveyance system would occur within an existing urban area located within the City of San José. The four project alignments (Alignment B, C, G, and H), described below, would occur within existing pubic right of way easements along roadways surrounded by residential, commercial, and industrial uses.

- Alignment B – The Gish Road alignment runs along the southern boundary of the Challenger school. Gish Road, a two lane road, has existing sidewalks and landscaping.
- Alignment C – The alignment runs within two lane roadways located in a commercial/industrial area between Interstate 880 and Interstate 680. The roadways have a pedestrian sidewalks system with maintained landscaping.
- Alignment G – The alignment runs within two and four lane roadways near Selma Olinder Park and McKinley Elementary School.
- Alignment H – The alignment runs within two and four lane roadways within residential areas near the Stonegate Elementary, RF Kennedy Elementary, Yerba Buena High School, Jeanne Meadows Elementary, J.W. Fair Intermediate School, and Success Academy.

3.2.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

AESTHETICS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	1
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒	1
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒	1
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the	☐	☐	☐	☒	1

AESTHETICS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
area?					
e) Increase the amount of shading on public open space (e.g. parks, plazas, and/or school yards)?	☐	☐	☐	☒	1

Question A

Under the Proposed Project, the recycled water pipeline would be installed within the City right-of-way within existing roadways. The distribution system would only be visible above ground only where proposed users connect to the system. These distribution lines would not substantially alter scenic vistas, as there are no designated scenic vistas near the project site. Construction related aesthetic impacts, including the use of large sized heavy equipment, would be temporary in nature, as the development of the pipeline would occur along a linear area and construction would not occur in one area over an extended period of time. ***No impact*** to scenic vistas would occur.

Question B

Under the Proposed Project, the recycled water pipelines for Alignments B, C, G, and H would not be constructed within the alignment of a scenic highway. ***No impact*** to scenic resources within a scenic highway would occur.

Question C

After construction, the proposed recycled water pipelines would be located in previously disturbed areas that are not visible, as they will be located underground beneath local roadways. The recycled water conveyance system would be buried within roadways and within existing SJWC easements. Construction impacts, including the use of large sized heavy equipment and staging areas, would be temporary in nature as the development of the pipeline would occur along a liner area and construction would not occur in one area over an extended period of time. ***No impact*** to the visual character of the sites would occur.

Questions D and E

The new sources of light, glare, or shade would not be introduced by operation of the Proposed Project, as the project alignments would be located underground. Construction impacts, including the use of large sized heavy equipment would be temporary in nature and occur during daylight hours. Therefore, ***no impact*** would occur as the project would not substantially increase ambient light in the vicinity, and would not significantly impact day or nighttime views.

Cumulative Impacts

The Proposed Project would not alter the visual character of the project alignments and surroundings through operation, as the buried distribution system would not be visible. Therefore, the Proposed Project would not contribute to cumulatively significant impacts associated with cultural resources. This impact is considered ***less than significant***.

3.2.3 STANDARD MEASURES

None required.

3.2.4 MITIGATION MEASURES

None required.

3.3 AGRICULTURE AND FOREST RESOURCES

3.3.1 SETTING

According to the California Department of Conservation's (CDC) Santa Clara County Important Farmland Map of 2008, all of the alignments are in areas designated as "Urban and Built-up Land," which is defined as being occupied by structures with a building density of at least 1 unit to 1.5 acres. Land uses generally found in areas with this designation include land used for industrial and commercial purposes, golf courses, landfills, airports, sewage treatment, and water control structures. There is no forest or timber land in the vicinity of the proposed alignments.

Each alignment will be constructed within existing right of ways, which are not zoned for agricultural or timberland production, nor bound by a Williamson Act contract.

3.3.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

AGRICULTURAL AND FOREST RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒	1, 2,3
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	1, 2, 3

AGRICULTURAL AND FOREST RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒	1, 2
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	1, 2
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?	☐	☐	☐	☒	1, 2, 3

Questions A, B, and E – Agricultural Resources

The project sites are not located in an area identified as prime farmland, nor are the sites being used for or zoned for agricultural use. Therefore, the Proposed Project will not result in a significant impact on the City's or Region's agricultural resources. ***No impact*** to agricultural resources would occur.

Questions C, D, and E – Forest Resources

The project sites are not located in an area defined as timber or forest land, nor are the sites being used for or zoned for timberland production. Therefore, the Proposed Project will not result in a significant impact on the City's or region's forest resources. ***No impact*** to forest resources would occur.

Cumulative Impacts

The Proposed Project would not result in the conversion of agriculture or forest land; therefore ***no cumulative impacts*** would occur.

3.3.3 STANDARD MEASURES

None required.

3.3.4 MITIGATION MEASURES

None required.

3.4 AIR QUALITY

3.4.1 SETTING

The project site is within a coastal climate region. Summer months are often characterized by the presence of a semi-permanent high-pressure cell centered near the California Coast. This high cell sits off the California coast and is the main influence on air quality in the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are generally weak and diffuse by the time they reach the Bay Area. The average annual rainfall in the project area is approximately 15 inches (City of San José, 2010b). Approximately 83 percent of the precipitation in the study area occurs from November through March. Summer maximum temperatures average 71.0 ºF in July and winter minimum temperatures average 42.5 ºF in January (WRCC, 2010).

The project alignments are located within the Bay Area Air Quality Management District (BAAQMD) boundaries. The BAAQMD has jurisdiction over air quality in Marin, Napa, southern Sonoma, San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, and western Solano Counties in accordance with implementation of the Clean Air Act (CAA) and under the delegation of the California Air Resource Board (CARB) and the U.S. Environmental Protection Agency (EPA). The BAAQMD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and review activities.

Ambient Air Quality Standards

The EPA, under the CAA establishes maximum ambient concentrations for the six criteria air pollutants (CAPs), known as the National Ambient Air Quality Standards (NAAQSs). The six CAPs are ozone (O_3), nitrogen dioxide (NOx), sulfur dioxide (SOx), carbon monoxide (CO), lead (Pb), and particulate matter 10 and 2.5 microns in size (PM_{10} and $PM_{2.5}$). Concentrations above these time-averaged limits are anticipated to cause adverse health effects to sensitive receptors. The EPA has established violation criteria for each CAP. For example, in order to constitute a violation, the NAAQS for ozone must be exceeded on more than three days in three consecutive years. On the other hand, if the NAAQS for CO is exceeded on more than one day in any given year, a violation occurred.

The California CAA establishes maximum concentrations for the six CAPs, as well as four additional air pollutants in California (visibility reducing particles, sulfates (SO_4), hydrogen sulfide (H_2S), and vinyl chloride). These maximum concentrations for the State are known as the California Ambient Air Quality Standards (CAAQSs). Concentrations above these time-averaged limits are anticipated to cause adverse health effects to sensitive receptors. The CARB is part of the California EPA and has jurisdiction over local air districts and has established their own standards and violation criteria for each CAP under the CAAQS. Refer to **Table 3-1** for the standards and violation criteria for the various averaging times for criteria pollutants of concern in the BAAQMD under the NAAQS and CAAQS.

TABLE 3-1
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Standard in parts per million		Standard in microgram per cubic meter		Violation Criteria	
		CAAQS	NAAQS	CAAQS	NAAQS	CAAQS	NAAQS
Ozone	1 hour	0.09	-	180	-	If exceeded	N/A
	8 hours	0.07	0.075	137	157	N/A	If exceeded on more than 3 days in 3 years
PM_{10}	Annual arithmetic mean	N/A	N/A	20	N/A	N/A	If exceeded
	24 hours	N/A	N/A	50	150	N/A	If exceeded on more than 1 day per year
$PM_{2.5}$	Annual arithmetic mean	N/A	N/A	12	15	N/A	If exceeded
	24 hours	N/A	N/A	N/A	35	N/A	If exceeded on more than 1 day per year

Notes: All standards are based on measurements at 25oC and 1 atmosphere pressure
National and state standards shown are the primary (health effects) standards.
N/A = not applicable.
CAAQS = California Ambient Air Quality Standards
NAAQS = National Ambient Air Quality Standard
Source: BAAQMD, 2010.

NAAQS and CAAQS Designations

As shown in **Table 3-2**, the SFBAAB has been designated nonattainment for 8-hour O_3 and $PM_{2.5}$ under the NAAQS and nonattainment for one-hour O_3, $PM_{2.5}$, and PM_{10}, under the CAAQS. These pollutants are pollutants of concern in the SFBAAB. For the remainder of the CAPs, the SFBAAB either meets the NAAQS and CAAQS or is designated as unclassifiable.

TABLE 3-2
BAY AREA AIR QUALITY MANAGEMENT DISTRICT ATTAINMENT STATUS

Pollutant	CAAQS	NAAQS
Ozone (8-hour/1-hour)	Unclassifiable/**Nonattainment**	**Nonattainment**
Particulate Matter 10	**Nonattainment**	Unclassifiable/Attainment
Particulate Matter 2.5	**Nonattainment**	**Nonattainment**

Source: BAAQMD, 2010

Pollutants of Concern

The following are descriptions of the adverse health risks from pollutants of concern in the BAAQMD:

Ozone (O_3)

Ozone is created in the presence of sunlight through photochemical reactions involving reactive organic gasses (ROGs) and NO_X. ROGs and NO_X are a result of incomplete combustion of fossil fuels, which is the largest source of ground-level ozone (O_3). Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, O_3 is primarily a summer air pollution problem. As a photochemical pollutant, O_3 is formed only during daylight hours under appropriate conditions, but is destroyed throughout the day and night. O_3 is considered a regional pollutant, as the photochemical reactions take place over time and are often most noticeable downwind from the sources of the emissions.

Particulate Matter (PM10 and PM2.5)

Particle pollution is a mixture of microscopic solids and liquid droplets suspended in air. This pollution, also known as particulate matter, is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil, and or dust particles, and allergens (such as fragments of pollen or mold spores). The size of particles is directly linked to their potential for causing health problems. Particulate matter less than 10 micrometers (µm) in diameter (PM_{10}) and 2.5 µm in diameter ($PM_{2.5}$) pose the greatest public health concerns, because they can traverse deep into the lungs (PM_{10}) and can be small enough to enter the bloodstream ($PM_{2.5}$).

Sensitive Receptors

Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality related health problems. Residential areas are considered sensitive to poor air quality, because people usually stay home for extended periods of time increasing the potential exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The land surrounding the project alignments is primarily residential with some recreational, industrial, and commercial uses. Numerous schools are additionally located along the project alignments. Construction activity would occur within 25 to 50 feet of residential uses along alignments B, C, G, and H.

3.4.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

AIR QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐	1, 11
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐	1, 11
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐	1, 11
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐	1, 11
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	1, 11

Questions A and B

Construction

Construction emissions from grading, trenching, paving, and worker trips were estimated using the 2007 Urban Emissions (URBEMIS) air quality model. URBEMIS estimated construction emissions are shown in **Table 3-3** and compared to the draft 2009 BAAQMD California Environmental Quality Act (CEQA) Guidelines (Guidelines) thresholds of 54 pounds per day for ROG, $PM_{2.5}$ and NOx and 82 pounds per day of PM_{10}. As shown in **Table 3-3** unmitigated construction emissions exceed the Guidelines threshold for NOx. However, with the implementation of mitigation measures in **Section 3.4.4**, NOx emissions would be reduced to below the Guidelines threshold. Construction of the Proposed Project would not conflict with or obstruct implementation of the BAAQMD 2004 Ozone Attainment Plan and would not cause or contribute to a violation of the NAAQS or CAAQS. Air quality impacts from construction are considered ***less-than-significant with mitigation***.

TABLE 3-3
MITIGATED (UNMITIGATED) CONSTRUCTION EMISSIONS

Construction Year	ROG	NOx	PM_{10}	$PM_{2.5}$
	Pounds per Day			
2010	9.80 (9.80)	50.76 (66.34)	7.13 (24.18)	3.37 (8.30)
2011	9.16 (9.16)	47.64 (62.23)	7.00 (23.96)	3.25 (8.09)
Maximum Year Emissions	9.80 (9.80)	50.76 (66.34)	7.13 (24.18)	3.44 (8.30)
BAAQMD Thresholds	54	54	82	54
Exceedance	No (No)	No (Yes)	No (No)	No (No)

Source: URBEMIS, 2007.

Operation

The City uses the threshold of significance established by the BAAQMD to assess air quality impacts. Based on the BAAQMD threshold of significance, projects that generate fewer than 2,000 vehicle trips per day are not considered major air pollutant contributors and do not require a technical air quality study. As operation and maintenance activities associated with the proposed recycled water pipelines will not generate more than 2000 vehicle trips, a detailed air quality analysis is not required.

Operational emissions from maintenance trips were estimated using the 2007 URBEMIS air quality model. URBEMIS estimated operational emissions are shown in **Table 3-4** and compared to the Guidelines operational thresholds of 10 tons per year for ROG, $PM_{2.5}$ and NOx and 15 tons per year of PM_{10}. As shown in **Table 3-4,** unmitigated operational emissions do not exceed the Guidelines threshold for ROG, NOx, PM_{10} or $PM_{2.5}$. Therefore, operational emissions from the Proposed Project would not conflict with or obstruct implementation of the BAAQMD 2004 Ozone Attainment Plan and would not cause or contribute to a violation of the NAAQS or CAAQS. Air quality impacts from operation are considered ***less-than-significant***.

TABLE 3-4
UNMITIGATED OPERATIONS EMISSIONS

Operation	ROG	NOx	PM_{10}	$PM_{2.5}$	CO_2
	Tons per Year				
Mobile	0.00	0.00	0.00	0.00	1.23
BAAQMD Thresholds	*10*	*10*	*15*	*10*	*1,100*
Exceedance	No	No	No	No	No

Source: URBEMIS, 2007.

Question C

As shown in **Table 3-2** the BAAQMD is in nonattainment for ozone, $PM_{2.5}$, and PM_{10}; therefore, the emissions of these criteria pollutant should be analyzed under cumulative conditions. According to the Guidelines if a project's emissions are below 10 tons per year or 54 pounds per day for ROG, $PM_{2.5}$ and

NOx and 15 tons per year or 82 pounds per day of PM_{10} then the project does not have a cumulative considerable impact. As shown in **Tables 3-3** and **Table 3-4,** project emissions are below the Guidelines thresholds; therefore, the Proposed Project has a ***less than significant*** cumulatively considerable impact on air quality.

Question D

Construction of the Proposed Project has the potential to increase the concentration of diesel particulate matter at near-by sensitive receptors. However, with the implementation of mitigation measures in **Section 3.4.4,** diesel particulate matter from heavy duty construction equipment would be reduced by 65 percent. This reduction combined within the relatively short duration of construction activities at any one sensitive receptor along the project alignments would result in a less than significant potential for impacts associated with diesel particulate matter emissions. This impact is considered ***less than significant with mitigation***.

Question E

Construction of the Proposed Project would temporarily emit odors from heavy duty construction equipment. Odors from heavy duty construction equipment are generally in the form of diesel particulate matter. With the implementation of mitigation measures in **Section 3.4.4,** diesel particulate matter during construction would be significantly reduced, resulting in a ***less than significant*** impact associated with odors. Recycled water irrigation is not listed in the Guidelines as an odor emitting land use; therefore potential impacts associated with odor from operation of the Proposed Project under the Guidelines would be considered ***less than significant***.

Cumulative Impacts

Emissions from the Proposed Project are primarily associated with short-term construction activities. The increase in traffic as a result of operational and maintenance activities is estimated to be up to one vehicle per day, which would not contribute to a cumulative considerable impact to air quality. The Proposed Project's cumulative contribution to air quality impacts is considered ***less than significant***.

3.4.3 STANDARD MEASURES

None required.

3.4.4 MITIGATION MEASURES

AQ-1 SJWC shall ensure through contractual obligations that the following construction practices shall be implemented during all phases of construction for the Proposed Project to prevent visible dust emissions from leaving the site and reduce particulate matter emissions:

- The contractor shall water all active construction areas at least twice daily and more often during windy periods to prevent visible dust from leaving the site; active areas adjacent to windy periods; active areas adjacent to existing land uses shall be kept damp at all times, or shall be treated with non-toxic stabilizers or dust palliatives.

- The contractor shall cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard.

- The contractor shall pave, or apply water at least three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.

- The contractor shall sweep daily to prevent visible dust from leaving the site (preferably with water sweepers) all paved access roads, parking areas, and staging areas at construction sites; water sweepers shall vacuum up excess water to avoid runoff-related impacts to water quality.

- The contractor shall sweep streets affected by construction activities daily, or more often if necessary (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.

- The contractor shall suspend excavation and grading activities when instantaneous wind gusts exceed 25 mph.

- The contractor shall use aqueous diesel fuel for all heavy duty construction equipment.

- The contractor shall ensure diesel oxidation catalysts are installed on all heavy duty construction equipment.

3.5 BIOLOGICAL RESOURCES

3.5.1 SETTING

Regulatory Context

Wetlands and Waters

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has regulatory authority over wetlands and waterways under both the federal Clean Water Act (CWA) and the State of California's Porter-Cologne Water Quality Control Act (California Water Code, Division 7). Under the CWA, the RWQCB has regulatory authority over actions in waters of the U.S. through the issuance of water quality certifications (certifications). Section 401 of the CWA is issued in combination with permits issued by the Army Corps of Engineers (USACE) under Section 404 of the CWA. When the RWQCB issues Section 401 certifications, it simultaneously issues general Water Discharge Requirements (WDR) for the project, under the Porter-Cologne Water Quality Control Act. Activities in areas that are outside of the jurisdiction of the USACE (e.g., isolated wetlands, vernal pools, or stream banks above the ordinary high water mark) are regulated by the RWQCB, under the authority of the Porter-Cologne Water Quality Control Act. Activities that lie outside of USACE jurisdiction may require the issuance of either individual or general WDRs from the RWQCB.

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) implement the federal Endangered Species Act (FESA) of 1973 (16 USC Section 1531 et seq.). Under FESA, threatened and endangered species on the federal list and their habitats (50 CFR Subsection 17.11, 17.12) are protected from "take" (i.e., activities that harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect) as well as any attempt to engage in any such conduct, unless a Section 10 Permit is granted to an individual or a Section 7 consultation and a Biological Opinion with incidental take provisions are rendered from the lead federal agency. Pursuant to the requirements of FESA, an agency reviewing a Proposed Project within its jurisdiction must determine whether any federally listed species may be present within the project site and vicinity and determine whether the Proposed Project will have a potentially significant impact upon such species. Under FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536[3], [4]). Therefore, project-related impacts to these species, or their habitats, would be considered significant and require mitigation.

Migratory Bird Treaty Act

Most bird species, (especially those that are breeding, migrating, or of limited distribution) are protected under federal and/or state regulations. Under the Migratory Bird Treaty Act of 1918 (16 USC Subsection 703-712), migratory bird species, their nests, and their eggs are protected from injury or death, and any project-related disturbances during the nesting cycle. As such, project-related disturbances must be reduced or eliminated during the nesting cycle.

California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the take of state-listed threatened and endangered species. Under CESA, state agencies are required to consult with the California Department of Fish and Game (CDFG) when preparing California Environmental Quality Act (CEQA) documents. Under CESA, the CDFG is responsible for maintaining a list of rare, threatened, and endangered species designated under state law (California Fish and Game Code 2070-2079). Project-related impacts to species on the CESA's rare, threatened, and endangered list would be considered significant and require mitigation. The CDFG can authorize take if an incidental take permit is issued by the Secretary of the Interior or Commerce in compliance with the FESA, or if the director of the CDFG issues a permit under Section 2080 in those cases where it is demonstrated that the impacts are minimized and mitigated.

Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan

To promote the recovery of endangered species while accommodating planned development, infrastructure and maintenance activities, the Local Partners, consisting of the City of San José, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, Santa Clara County and the cities of Gilroy and Morgan Hill, are preparing a joint Habitat Conservation Plan/Natural Community Conservation Plan (Habitat Plan). The Santa Clara Valley Habitat Plan (Plan) is being developed in association with the USFWS, the CDFG, and the NMFS and in consultation with stakeholder groups and the general public to protect and enhance ecological diversity and function within more than 500,000 acres of southern Santa Clara County.

The Santa Clara Habitat Plan Planning Agreement outlines the Interim Project Process to ensure coordination of projects approved or initiated in the Planning Area before completion of the Habitat Plan to help achieve the preliminary conservation objectives of the plan, and not preclude important conservation planning options or connectivity between areas of high habitat values. The Interim Project Process requires the local participating agencies to notify the wildlife agencies (CDFG and USFWS) of projects that have the potential to adversely impact Covered Species, natural communities, or conflict with the preliminary conservation objectives of the Habitat Plan. The Wildlife Agencies comments on Interim Projects should recommend mitigation measures or project alternatives that would help achieve the preliminary conservation objectives of the Habitat Plan.

City of San José Tree Ordinance

The City of San José Tree Removal Ordinance requires a discretionary permit process for the removal of trees ~~on~~ over 56 inches in circumference (18 inches in diameter) at a height of two feet from the ground (City of San José Civil Code 13.32.020). The City of San José has adopted a Heritage Tree List (San José Municipal Code, Section 13.28.330 and Section 13.32.090) that provides official recognition and protection for trees that are of notable significance due to their history, girth, height, species, or other unique characteristic (City of San José, 2006).

Methodology

Information for the project site was obtained from the following sources: color aerial photographs of the surrounding project site (AEX Aerial Photograph, 2006); project site design (HydroScience Engineers,

2010); USFWS Wetlands Online Mapper (USFWS, 2009b) and the U.S. Geological Survey (USGS) National Hydrological Dataset (USGS, 2000) for the San José East, San José West, and Milpitas USGS 7.5-minute topographic quadrangles (quads); a USFWS list, dated December 1, 2009, of federally listed special-status species with the potential to occur on or be affected by projects on the San José East, San José West, and Milpitas quads (USFWS, 2009a); a CNPS query of special-status plants known to occur on the San José East, San José West, and Milpitas quads (CNPS, 2010); a California Natural Diversity Database (CNDDB) query, dated January 4, 2010, of special-status species known to occur on the San José East, San José West, and Milpitas quads (CDFG, 2003); and a CNDDB map of special-status species known to occur within one mile of the project site (CDFG, 2003) (**Figure 3-1**). The CNDDB map for species within one mile of the project site was obtained from known occurrences on the San José East, San José West, Milpitas quads, and Calaveras Reservoir (CDFG, 2003). The USFWS, CNDDB, and CNPS lists are available in **Appendix A**.

B~~A b~~iological surveys of the project site and surrounding vicinity were~~as~~ conducted ~~on~~ by AES biologists Kelly Buja, M.S., and Laura Burris on February 23, 2010 and by Ms. Buja on June 3, 2010 ~~by AES biologists Kelly Buja, M.S., and Laura Burris~~. The biological surveys consisted of driving and/or walking along the proposed pipeline alignments and stream crossings to document biological communities and assess whether potential habitat for special-status species occurs within the project site. Photographs of the project site are illustrated in **Figure 3-2**. Lists of plants and wildlife species observed in the vicinity of the project site are provided in **Appendix A**.

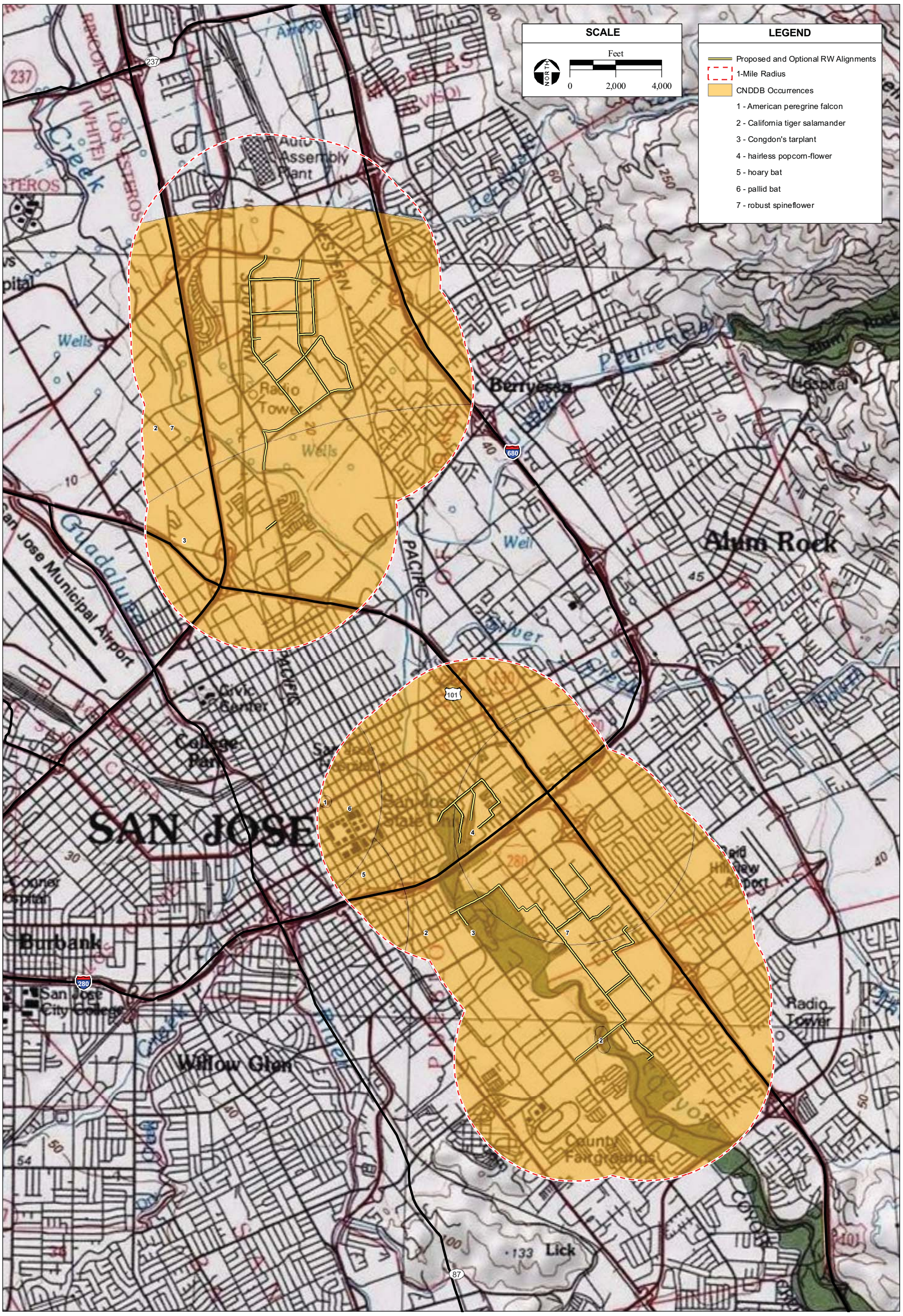
Information on regionally occurring special-status species was compiled based on the USFWS list, the CNDDB query, the CNPS inventory, and the CNDDB map within one mile of the project site. The potential for each of the regionally occurring special-status species was subsequently evaluated based on the results of the biological ~~field~~ surveys. A discussion of the distribution and habitat requirements for each species and an evaluation of the potential for each species to occur in the project site are included in **Appendix A**. Species that have no potential to occur in the project site are not discussed further.

Environmental Setting

The majority of the project site is urbanized, with residential and commercial development covering most of the landscape. Most pipelines are proposed to be installed within existing roadways. However, where pipelines are proposed to cross streams, there remains potential for loss of valuable riparian habitat. For this reason, the focus of the biological studies is on the pipeline stream crossings. The 1992 EIR and 1996 EIS for the SBWR project noted that “the expansion of the pipeline distribution system could result in additional impacts to biotic resources.”

Regional Location

The project site is located within the San Francisco Bay Area Subregion of the Central Western California Region of the California Floristic Province. The project site occurs within zones 15 through 17 of the Coastal Climates of Northern and Central California (Hickman, 1993). Topography within the project site is relatively flat with an elevation that ranges from approximately 80 feet to 100 feet within Alignment G; 110 feet to 136 feet within Alignment H; 65 feet to 68 feet within Alignment B; and 55 feet to 80 feet within Alignment C.



SOURCE: California Natural Diversity Database, 1/2010; HydroScience Engineers, 2010;
"San Jose, CA" USGS 100k Topographic Quadrangle, Mt. Diablo Baseline & Meridian; AES, 2010

Figure 3-1

CNDDB Special Status Species 1-Mile Radius Map
Alignments B, C (Phase I and II), G, and H - Proposed and Optional

PHOTO 1: Alignment C: View to north of developed areas and ornamental landscape trees along the street.

PHOTO 2: Alignment G Creek Crossing: View to northeast of riparian vegetation from bridge over Coyote Creek at East William Street.

PHOTO 3: Alignment H Creek Crossing: View to northwest of the Tully Road bridge over Coyote Creek.

PHOTO 4: Alignment G Creek Crossing: View to northwest of bridge over Coyote Creek at East William Street.

PHOTO 5: Alignment H Creek Crossing: View to west of several nests on trees within the riparian habitat just south of the Tully Road bridge over Coyote Creek.

PHOTO 6: Alignment G: View to northeast of spoils piles within disturbed area east of 22nd Street within the Optional Alignment.

SOURCE: AES, 2010

Figure 3-2
Site Photographs

Habitat Types

The entire project site is developed (**Figure 3-2**: **Photograph 1**). Developed areas include paved roads and ~~two~~ three bridges that cross over Coyote Creek. ~~One~~ The first bridge occurs on East William Street in Alignment G of the project site (**Figure 3-2**: **Photograph 4**). The ~~other~~ second bridge occurs on Tully Road within Alignment H of the project site (**Figure 3-2**: **Photograph 3**). The third bridge occurs on Story Road within Alignment H of the project site. The project site is immediately surrounded by ornamental landscaping, including coast redwood (*Sequoia sempervirens*), Deodar cedar (*Cedrus deodora*), and pine (*Pinus* sp.), parking lots, golf courses, industrial buildings, residential dwellings, and disturbed areas. Disturbed areas include locations where grading has occurred for future development unrelated to the project. One disturbed area located east of 22nd Street in the vicinity of Optional Alignment G of the project site contains spoils piles (**Figure 3-2**: **Photograph 6**). A more detailed description of the pipeline stream crossings is provided below.

Pipeline Crossing of Coyote Creek at East William Street

The East William Street bridge crossing spans Coyote Creek (**Figure 3-2**: **Photograph 4**). The stream ranges between 10 and 20 feet in width with approximately 45 degree angle banks. Riparian habitat occurs around the bridge in the vicinity of the project site (**Figure 3-2**: **Photograph 2**). Trees abut both sides of the bridge. Dominant vegetation observed within the riparian habitat includes: willow (*Salix* sp.), giant reed (*Arundo donax*), galium (*Galium* sp.), privet (*Ligustrum* sp.), and coast live oak (*Quercus agrifolia*). Several bird nests were observed within the trees within the riparian habitat surrounding the bridge. No birds were observed nesting during the biological surveys.

Pipeline Crossing of Coyote Creek at Tully Road

The Tully Road bridge crossing spans Coyote Creek (**Figure 3-2**: **Photograph 3**). Fences extend across both sides of the bridge. Trees abut the sides of the bridge. The streambed is approximately 10 feet wide with approximately 45 degree angle banks. Riparian habitat occurs around the bridge in the vicinity of the project site. Trees abut both sides of the bridge. Dominant vegetation observed within the riparian habitat includes: California sycamore (*Platanus racemosa*), willow, coast live oak, and manroot (*Marah fabaceus*). Several bird nests were observed within the trees within the riparian habitat surrounding the bridge. No birds were observed nesting during the biological surveys.

Pipeline Crossing of Coyote Creek at Story Road

The Story Road bridge crossing spans Coyote Creek. The streambed is approximately 20 feet wide with approximately 25 degree angle banks. Riparian habitat comprised of native and ornamental vegetation occurs around the bridge in the vicinity of the project site. Dominant vegetation observed within the riparian habitat includes: California buckeye (*Aesculus californica*), California sycamore, willow, coast live oak, peppertree (*Schinus* sp.), and redwood (*Sequoia sempervirens*). Several bird nests were observed within the trees within the riparian habitat. No birds were observed nesting during the biological surveys.

Special-Status Wildlife

The following special-status species have the potential to occur within the project site: Pallid bat (*Antrozous pallidus*), western burrowing owl (*Athene cunicularia*), western pond turtle (*Actinemys marmorata*), and migratory birds and nesting raptors. Although **Figure 3-1** identifies two California tiger salamander (*Ambystoma californiense*) occurrences mapped as polygons around the project site near

Tully Road, the records state that the occurrences have been extirpated. Therefore, CTS would not be impacted by the project.

Pallid Bats

Pallid bats, a state listed species of concern, are found in grasslands, shrublands, woodlands, and forests from sea level up to mixed conifer forests through 2,000 meters. Pallid bats commonly occur in open, dry habitats with rocky areas for roosting. Other roosts include cliffs, abandoned buildings, bird boxes, and under bridges (Harris, 2000). Pallid bats are most active during the dawn and dusk hours and forage over open ground. They establish daytime roosts in caves, crevices, mines, large hollow trees, and unoccupied buildings. Pallid bats mate from October through February and most young are born from April through July (Harris, 2000). They occur in arid and semi-arid regions across much of the American west, along the coast from Canada to Mexico (Arizona-Sonora Desert Museum, 2006-2009). The two bridges within the project site provide potential roosting habitat for this species (**Figure 3-2**: **Photographs 3** and **4**). The trees within the ornamental landscaping and the riparian habitat in the vicinity of the project site provide daytime roosts for this species. Pallid bats were not observed during the biological surveys within the project site. This species has the potential to roost within the project site.

Western Burrowing Owls

Western burrowing owls, a state listed species of concern, inhabit open grasslands, especially prairies, plains, savannas, and in open areas including vacant lots and spoils piles near human habitat. Nesting and roosting occurs in burrows dug by mammals (such as ground squirrels), but may also occur in pipes, culverts, and nest boxes. Western burrowing owls nest from March to August. Western burrowing owls occur throughout California, except in northwestern coastal forests and on high mountains (CDFG, 2005). The project site does not provide habitat for this species. The spoils piles within the disturbed area located east of 22nd Street in the vicinity of Alignment G provide nesting and wintering habitat for this species (**Figure 3-2**: **Photograph 6**). Western burrowing owls or their nests were not observed during the biological surveys of the project site. This species has the potential to winter and nest in the vicinity of the project site.

Western pond turtles

Western pond turtles (WPT) are found in permanent ponds, lakes, streams, irrigation ditches, permanent pools, and intermittent streams. WPT require aquatic habitats with suitable basking sites. Nest sites are most often characterized as having gentle slopes less than 15 percent with little vegetation or with sandy banks. WPT are found from 0 to 1,430 meters (Stebbins, 2003). WPT are known throughout California west of the Sierra-Cascade crest, absent from desert regions except along the Mohave River and its tributaries (Stebbins, 2003). The two streams that cross beneath the project site and the surrounding riparian vegetation provide habitat for this species. This species was not observed during the biological surveys of the project site. This species has the potential to occur in the vicinity of the project site.

Migratory Birds and Other Birds of Prey

The project site provides nesting habitat for migratory birds beneath the bridges. The trees within the ornamental landscaping and the riparian habitat in the vicinity of the project site provide potential nesting habitat for migratory birds and other birds of prey, including American peregrine falcon (*Falco peregrinus anatum*) and white-tailed kite (*Elanus leucurus*). No nests were observed beneath the bridges. No nests

were observed within the ornamental trees in the vicinity of the project site. Nests were observed within several trees within the riparian habitat in the vicinity of the project site (**Figure 3-2**: **Photograph 5**). Therefore, migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA, have the potential to nest in the vicinity of the project site.

Waters of the U.S.

Proposed pipelines would cross Coyote Creek at three~~wo~~ locations. Coyote Creek is mapped as a blue-line feature on the National Wetlands Inventory (NWI) Online Mapper and the National Hydrologic Dataset of the project site (USFWS, 2009b and USGS, 2000) (**Figure 3-3**). Coyote Creek is likely considered a water of the U.S. that is subject to USACE jurisdiction. No other potential wetlands or other waters of the U.S. were observed in the vicinity of the proposed pipeline alignments.

3.5.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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 in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	1, 8
b) Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game USFWS?	☐	☐	☒	☐	1
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?	☐	☒	☐	☐	1
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors or impede the use of native wildlife nursery sites?	☐	☐	☐	☒	1

BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐	1, 9
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?	☐	☐	☐	☒	1, 16

Question A

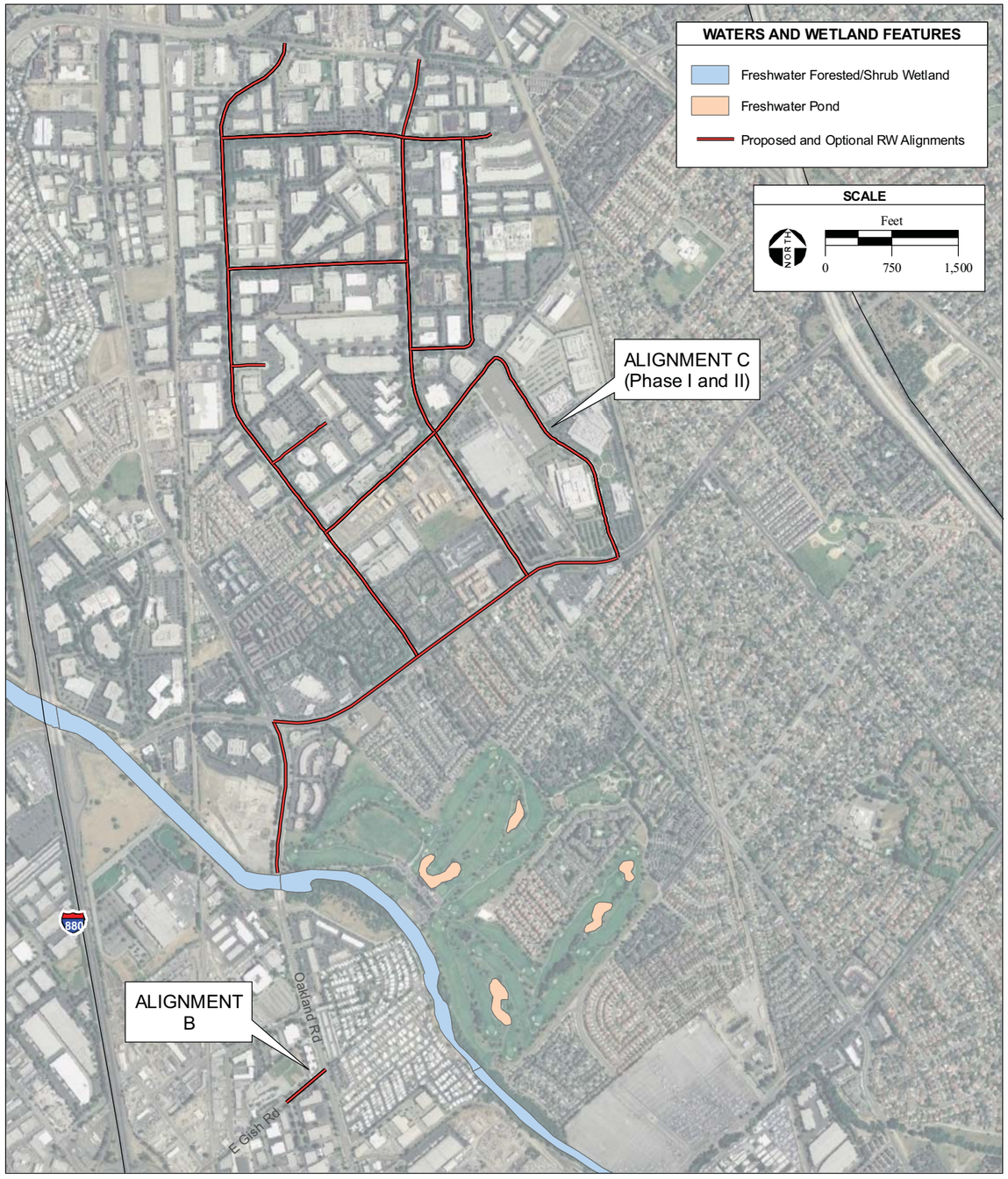
The majority of proposed pipelines would be constructed within the road right-of-ways, which do not provide potential habitat for any federal or state listed plants or federally listed wildlife. Species with the potential to be impacted by the Proposed Project are discussed below.

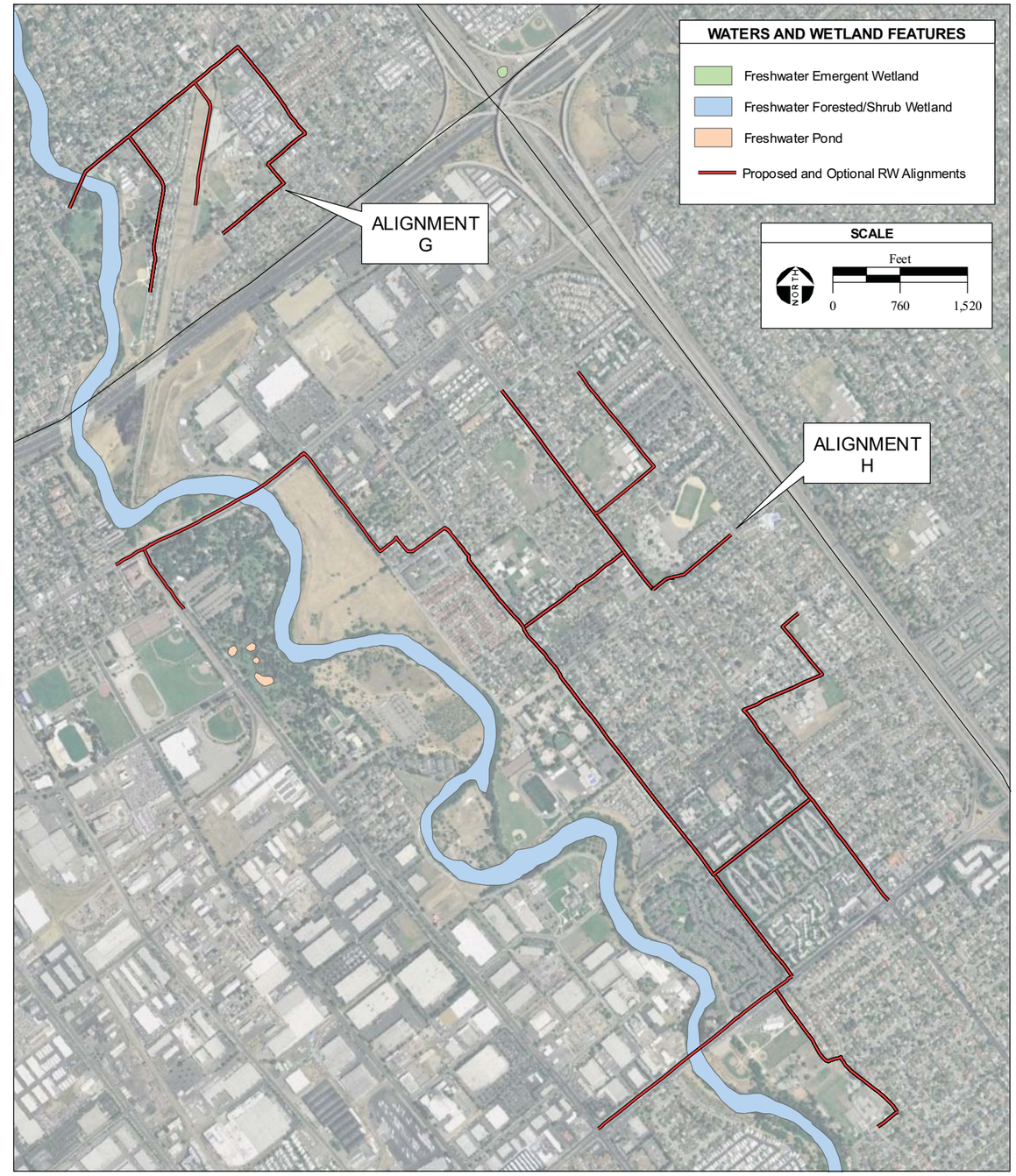
Burrowing Owl

The stockpiles located within the disturbed area east of 22nd Street at the southern extent of Alignment G provide potential nesting and wintering habitat for western burrowing owl. **Mitigation Measure BR-1** requires preconstruction surveys and exclusion methods and avoidance measures for active nests if present during preconstruction surveys. With the incorporation of **Mitigation Measure BR-1** identified below, impacts to western burrowing owls would be reduced to less than significant. ***Less than significant with mitigation.***

Nesting Birds

Potential nesting habitat is present in the immediate vicinity of the Proposed Project footprint for migratory bird species and other birds of prey. If active nests are present in these areas, tree removal and other construction activities associated with the installation of the pipelines beneath the t~~w~~hree~~o~~ bridges and along the roads within the existing right-of-ways that could result in construction-related disturbance through nest abandonment, abandonment of nestlings, or forced fledging would be considered take under federal law. The nests and eggs of ~~any~~ most nongame birds are protected from take pursuant to California Fish and Game Code Section 3503. **Mitigation Measure BR-2** requires preconstruction surveys and avoidance measures for active nests if present. With the incorporation of Mitigation Measure BR-2 identified below, impacts to nesting birds would be reduced to less than significant. ***Less than significant with mitigation.***





SOURCE: HydroScience Engineers, 2010; USFWS, 1999; AEX Aerial Photograph, 6/15/2006; AES 2010

Figure 3-3
National Wetlands Inventory Map
Alignments B, C (Phase I and II), G, and H - Proposed and Optional

Pallid Bats

Potential roosting habitat for Pallid bats is present beneath the three~~wo~~ bridges that cross Coyote Creek and within the trees in the ornamental landscaping and riparian habitat in the vicinity of the proposed pipeline alignments. If active roosts are present, potential tree trimming and/or removal could impact Pallid bats through injury or entrapment within the roost. Mitigation Measure BR-3 requires preconstruction surveys and avoidance measures if active roosts are found during the maternity roosting season. With the implementation of **Mitigation Measure BR-3**, impacts to roosting sites for Pallid bats would be reduced to less than significant. ***Less than significant with mitigation.***

Western Pond Turtle

Potential habitat for WPT is present beneath the three~~wo~~ bridges that cross Coyote Creek and within the riparian habitat in the vicinity of the proposed pipeline alignments. If WPT is present, installation of the pipeline and trimming of the riparian vegetation could impact this species through disturbance of habitat. **Mitigation Measure BR-4** requires a preconstruction survey and monitoring during construction activities within the riparian habitat. With the implementation of Mitigation Measure BR-4, impacts to WPT would be reduced to less than significant. ***Less than significant with mitigation.***

Question B

Riparian habitat occurs in the vicinity of the three~~wo~~ bridges within the project site. Pipeline creek crossings would be accomplished through directional drilling, pipeline suspension, or jack and bore construction methods. In areas with riparian habitat, construction staging areas would be located to avoid potential impacts to biological resources, however, the installation of the pipeline may require trimming of tree branches or roots to accommodate construction equipment. Impacts to trees would be avoided through incorporation of standard measures required by the City's Tree Ordinance listed in **Section 3.5.3**. Because tree trimming would not permanently remove any woody vegetation that provides an overstory for the riparian habitat, impacts to riparian habitat, a sensitive biological community, are considered less than significant. ***Less than significant.***

Question C

Coyote Creek, a potentially jurisdictional waterway, flows beneath the three~~wo~~ bridges within the project site. Pipeline creek crossings would be accomplished through directional drilling, pipeline suspension, or jack and bore construction methods in order to avoid impacts to the bed and banks of the stream. As discussed in the Construction Measures located within **Section 3.10.3**, potential impacts to water quality through sediment runoff would be avoided. With the best management practices and mitigation measures identified within the Stormwater Pollution Prevention Plan (SWPPP) for construction activities, impacts to waters of the U.S. are considered less than significant. ***Less than significant with mitigation.***

Question D

Construction activities associated with installation of the pipeline along the existing bridges would not occur within Coyote Creek. All recycled water pipelines would be installed within the right-of-way of existing roadways and would cross creeks through directional drilling, pipeline suspension, or jack and

bore methods avoiding impacts to these features. Therefore, the Proposed Project would have no impact on migratory fish or wildlife corridors. ***No impact.***

Question E

Construction of the Proposed Project may result in the removal or damage of ornamental trees in the vicinity of the project site. If any of these trees are large enough to be covered under the San José Tree Ordinance, the exact number of qualifying trees to be removed will be determined prior to the issuance of encroachment permits. Removal of these trees would not be considered a significant impact so long as the Proposed Project conforms to the San José Tree Ordinance as described in standard measures listed in **Section 3.5.3**. ***Less than significant.***

Question F

The Santa Clara Valley Habitat Plan has not yet been adopted, therefore, no adopted conservation objectives are applicable to the Proposed Project. The Proposed Project is consistent with the preliminary conservation objectives identified within the Habitat Plan. ***No impact.***

Cumulative Impacts

Cumulative projects, including growth resulting from build-out of the City's General Plan, are anticipated to permanently remove plant and wildlife resources, which could affect special-status species and their habitat, nesting and foraging habitat for resident and migratory birds, and/or local policies or ordinances protecting biological resources. The potential for impacts to biological resources as a result of the Proposed Project is limited to short-term construction effects as no habitat loss or conversion would result. Development of the Proposed Project would not contribute to a permanent loss of regional biological resources through the incremental conversion of habitat for special-status species to human use. Mitigation measures have been specifically designed to avoid, reduce, or mitigate potential short-term impacts to special-status species and their habitat as a result of construction activities. With these measures, the project's contribution to regional impacts to biological resources would be less than cumulatively considerable. Therefore, impacts would be considered ***less than significant with mitigation***.

3.5.3 STANDARD MEASURES

The following tree protection measures shall be implemented for removal or pruning of trees subject to the City's tree ordinance in order to protect trees to be retained during construction:

- Preconstruction treatments:
  1. The applicant shall retain a consulting arborist. The construction superintendent shall meet with the consulting arborist before beginning work to discuss work procedures and tree protection.
  2. Fence all trees to be retained to completely enclose the TREE PROTECTION ZONE prior to grubbing or grading. Fences shall be six-foot chain link or equivalent as approved by the consulting arborist. Fences are to remain until all grading and construction is completed.

3. Prune trees to be preserved to clean the crown and to provide clearance. All pruning shall be completed or supervised by a Certified Arborist and adhere to the Best Management Practices (BMPs) for Pruning of the International Society of Arboriculture.

- During construction:

1. No grading, construction, demolition or other work shall occur within the TREE PROTECTION ZONE. Any modifications must be approved and monitored by the consulting arborist.
2. Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the consulting arborist.
3. Supplemental irrigation shall be applied as determined by the consulting arborist.
4. If injury should occur to any tree during construction, it shall be evaluated as soon as possible by the consulting arborist so that appropriate treatments can be applied.
5. No excess soil, chemicals, debris, equipment, or other materials shall be dumped or stored within the TREE PROTECTION ZONE.
6. Any additional tree pruning needed for clearance during construction must be performed or supervised by a Certified Arborist and not by construction personnel.
7. As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings, and pavements on expansive soils near trees shall be designed to withstand differential displacement.

Any ordinance-sized trees slated for removal shall be replaced at the ratios shown in **Table 3-5**, in accordance with the City of San José Tree Ordinance. The species and exact number of trees to be planted on the site will be determined prior to the issuance of encroachment permits, in consultation with the City Arborist and the Department of Planning, Building, and Code Enforcement.

TABLE 3-5
TREE REPLACEMENT RATIOS

Diameter of Tree to be Removed	Type of Tree to be Removed			Minimum Size of Each Replacement Tree
	Native	Non-Native	Orchard	
18 inches or greater	5:1	4:1	3:1	24-inch box
12 - 18 inches	3:1	2:1	none	24-inch box
less than 12 inches	1:1	1:1	none	15-gallon container

x:x tree replacement to tree loss ratio
Note: Trees greater that 18" diameter shall not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees.
Source: City of San José, 2009.

3.5.4 MITIGATION MEASURES

BR-1 Prior to construction along 22nd Street at the southern extent of Alignment G, preconstruction surveys shall be conducted for burrowing owl in the vicinity of the spoils piles on the east side of 22nd Street by a qualified biologist. In accordance with the CDFG burrowing owl survey protocol, the survey area will extend 500-feet from construction areas (CDFG, 1995) along 22nd

Street where legally permitted. The biologist will use binoculars to visually determine whether burrowing owls occur beyond the construction areas if access is denied on adjacent properties. If no burrowing owls or their sign are detected in the vicinity of the project site during the preconstruction survey, a letter report documenting survey methods and findings shall be submitted to the City and the CDFG within 30 days following the survey, and no further mitigation is required. If unoccupied burrows are detected during the non-breeding season (September through January 31), the City shall be contacted within one day following the preconstruction survey to report the findings. The City shall collapse the unoccupied burrows, or otherwise obstruct their entrances to prevent owls from entering and nesting in the burrows. If occupied burrowing owl burrows are detected, impacts on burrows shall be avoided by providing a buffer of 160 feet during the non-breeding season (September 1 through January 31) or 250 feet during the breeding season (February 1 through August 31). The size of the buffer area may be adjusted if a qualified biologist or the CDFG determine the burrowing owl would not likely be affected by the Proposed Project. Project activities shall not commence within the buffer area until a qualified biologist confirms that the burrow is no longer occupied. If the burrow is occupied by a nesting pair, a minimum of 7.5 acres of foraging habitat contiguous to the burrow shall be maintained until the breeding season is finished.

BR-2 To the extent feasible, construction should be scheduled between October and December (inclusive) to avoid the nesting season for migratory birds and other birds of prey. If this is not possible, preconstruction surveys for migratory birds and other birds of prey shall be conducted by a qualified biologist to identify active raptor nests that may be disturbed during project construction. Between January and April (inclusive) preconstruction surveys shall be conducted no more than 14 days prior to the initiation of construction activities or tree relocation or removal. Between May and August (inclusive), preconstruction surveys shall be conducted no more than thirty (30) days prior to the initiation of these activities. The surveying biologist shall inspect all trees in and immediately adjacent to the construction area for active nests. If an active nest is found in or close enough to the construction area to be disturbed by these activities, the biologist shall, in consultation with the CDFG, designate a construction-free buffer zone (typically 250 feet) around the nest. The applicant shall submit a report to the City's Environmental Principal Planner indicating the results of the survey and any designated buffer zones to the satisfaction of the Director of Planning prior to the issuance of any encroachment permits.

BR-3 Surveys for roosting bats shall be conducted by a qualified biologist no more than thirty (30) days prior to any pipeline installation along the bridges and tree relocation and/or removal. If a female or maternity colony of bats is found on the project site, and the project can be constructed without disturbance to the roosting colony, a bat biologist shall designate buffer zones (both physical and temporal) as necessary to ensure the continued success of the colony. Buffer zones may include a 200-foot buffer zone from the roost and/or timing of the construction activities outside the maternity roosting season (after July 31 and before March 1). If an active nursery roost is known to occur on the site and the project cannot be conducted outside of the maternity roosting season, bats may be excluded after July 31 and before March 1 to prevent the formation of maternity colonies. Such exclusion shall occur under the direction of a bat biologist, by sealing openings and providing bats with one-way exclusion doors. In

order to avoid excluding all potential maternity roosting habitat simultaneously, alternative roosting habitat, as determined by the bat biologist, should be in place at least one summer season prior to the exclusion. Adjacent oaks and oak woodland areas should be preserved to the maximum extent feasible as potential bat roosting habitat. Bat roosts should be monitored as determined necessary by a qualified bat biologist, and the removal or displacement of bats shall be performed in conformance with the requirements of the CDFG. A biologist report outlining the results of preconstruction surveys and any recommended buffer zones or other mitigation shall be submitted to the satisfaction of the City's Environmental Principal Planner prior to the issuance of any encroachment permit or tree removal permit.

BR-4 A preconstruction survey shall be conducted by a qualified biologist no more than 30 days prior to commencement of construction activities in the vicinity of the riparian habitat for the western pond turtle. A qualified biologist shall monitor construction activities that occur within the riparian habitat. Should a western pond turtle be found, construction shall halt until the biologist translocates the turtle or until the turtle leaves the construction site.

3.6 CULTURAL RESOURCES

3.6.1 SETTING

Prehistory

Early syntheses of Contra Costa County area prehistory include Nelson (1909), Meighan (1955), and Elsasser (1978). Frederickson (1973, 1974) divides human history in California into three broad periods: the Paleo-Indian period, the Archaic period and the Emergent period. This scheme used sociopolitical complexity, trade networks, population, and the introduction and variations of artifact types to differentiate between cultural units. Moratto (1984) also provides an overview of culture history in the San Francisco Bay Area. More recently, Milliken et al. (2007) devised a chronological scheme for the greater San Francisco Bay Area based on material culture, particularly shell beads and ground stone.

Early Holocene (Lower Archaic) 10,000-5,500 B.P.

The available data suggests this period was characterized by the use of ground stone artifacts, particularly milling stones and handstones, and large. The earliest date for such an assemblage is 9,920 years before present (B.P.) and was obtained from charcoal beneath a milling slab at CA-CCO-696 in the East Bay. This archaeological pattern was also expressed at sites in the South Bay such as CA-SCL-178 and CA-SCL-65 and in the North Bay at CA-SON-348/H and CA-SON-20 (Milliken et al., 2007: 114).

Early Period (Middle Archaic) 5,500-2,500 B.P.

The Early Period witnessed to a series of technological and social innovations, which suggest a more sedentary lifestyle in some areas. Rectangular shell beads made of *Olivella* (Purple Olive) and *Haliotis* (abalone) are characteristic of this period and are perforated by both cutting and drilling. Ground stone technology advances to include mortar and pestles, which appear at roughly 6,000 B.P. and signal a less mobile society in some areas. Further inland, a house floor with post holes, which dates to ca. 3,500 B.P. indicates a more sedentary lifestyle (Milliken et al., 2007: 114-115).

Lower Middle Period (Initial Upper Archaic) 2,500 to 1,570 B.P.

A shift in ceremonial or religious life is thought to be responsible for the disappearance of the rectangular beads so common in the previous period. Rectangular beads are replaced with split-beveled and tiny saucer *Olivella* beads, which are traded throughout the region. Mortar and pestles are more common than in the previous period and indicate a higher degree of sedentism. The milling stone/handstone forager economy persists only on the Pacific Coast of the San Francisco Peninsula (Milliken et al., 2007: 115-116).

Upper Middle Period (Late Upper Archaic) 1,570 to 950 B.P.

The transition to the Upper Middle Period (Late Upper Archaic) is marked by another dramatic shift in material cultural. The trade network of saucer beads disappears and is replaced by a series of temporally diagnostic beads known as M2, M3, and M4. Material culture related to the M2 horizon (1,580 to 1,400 B.P.) contains new artifact types such as ceremonial (non-utilitarian) blades, fishtail charmstones, mica ornaments and new type of haliotis ornaments. The M3 horizon (1,400 to 1,200 B.P.) represents the height of stylistic expertise through the small, delicate square saddle beads. The M4 horizon (1,200 to

950 B.P.) is a collapse of the saddle bead form and the introduction of a variety of new bisymmetrical bead shapes. Also, new forms of *haliotis* ornaments are common during the M4 horizon (Milliken et al., 2007: 116-117).

Initial Late Period (Lower Emergent) 950 to 450 B.P.

The cultures of the Bay Area and Delta region underwent significant changes in the Initial Late Period. Of particular interest are the implications of the introduction of bow and arrow technology. A host of new projectile point types appear in the archaeological record. The earliest arrow-sized projectile point is the Stockton Serrated series, which appears at approximately 750 B.P. (Justice, 2000: 352). New forms of beads and ornaments also appear, particularly the *Olivella* callus cup and sequin beads (horizon L1) (Milliken et al., 2007: 116-117).

Terminal Late Period: 450 B.P. to Spanish Contact (1776)

Clamshell disk beads (Bead Horizon L) replace cup and sequin beads during this period. The Terminal Late Period ends with Spanish Contact in 1776 (Milliken et al., 2007: 117-118).

Ethnographic Setting

The project is situated in an area that is the traditional territories of the people known as the Costanoan culture. The Costanoan language group was broad and encompassed many local dialects; the dialect of Costanoan spoken in the Santa Clara Valley (and hence the project area) was known as *Tamyen* or Santa Clara Costanoan. In 1770, it is estimated that Tamyen was spoken by approximately 1,200 individuals in the Santa Clara Valley and the southern portion of San Francisco Bay. It is assumed that all the Costanoan languages were dead by 1935 (Levy, 1978: 485, 487).

The most extensive accounts of Costanoan culture was compiled from the field notes of Harrington (1921; 1921-1938; 1942). Additional data in regards to the Costanoans was collected by Kroeber (1907) and Merriam (1968). Among the ethnographic sources is the account of Williams (1890) who documented his life as a Native American living within the Spanish Mission system (Levy, 1978: 495).

Costanoan culture was impacted drastically and unalterably with European contact and the subsequent establishment of seven Spanish Missions within Costanoan territory. European disease and falling birthrate reduced the Costanoan population from more than 10,000 individuals in 1770 to less than 2,000 in 1832. Examination of mission baptismal records reveals that, by 1810, Costanoan tribelets no longer existed living an aboriginal life in the San Francisco Bay Area (Levy, 1978: 486).

History of San José

Spanish Period

The earliest group of Spanish explorer to travel through the general vicinity of the Project area was Portola-Crespi party in the fall of 1769. The following year, in 1770, Pedro Fages must have passed through or nearby the project site when he travelled through the Santa Clara Valley during his mission to find an inland route from Monterey to the San Francisco Bay Area (Beck and Haase, 1974). The culmination of Spanish exploration in the southern San Francisco Bay Area was the establishment of the

Mission Santa Clara de Asis in 1777 in modern day Santa Clara and the Mission San José in 1797 in modern day Fremont.

Mission Santa Clara de Asis dominated the southern portion of the San Francisco Bay Area during the Spanish Period. The first years of the Missions existence were fraught with disaster and, in response, the Mission church was moved several times (Pugh, 1999). In November 1777, the *Pueblo de San José de Guadalupe* was founded to the east of *Mission Santa Clara de Asis* by José Moraga. The city encompasses an area of four square leagues. This city was the first Spanish Pueblo to be founded in what is now the State of California (Gudde, 1998:338; Burgess and Burgess, 2007: 120). In the spring of 1778, floods washed away a newly constructed dam intended to bring irrigation to the newly established town. A new dam was immediately constructed at higher ground. This dam was not successful against annual flooding and in 1797 the townsite was moved once again to the area of Market and San Fernando Streets in what is now downtown San José (Hoover et al, 2002:424).

Mexican Period

In August 1821 the Treaty of Cordova was signed, recognizing the independence of the Mexican Empire (Rives, 1913). This event marked the beginning of the short-lived Mexican Period in the history Alta California. The transition to the Mexican Period probably saw little change in the daily working of the City of San José. The land upon which the City had been established was deemed public land and had never been under the control of the church or a private individual. Therefore, the City was never burdened with the endless legal battles that plagued large swaths of land throughout California during the Mexican and nascent American Periods.

American Period

American settlers had already begun arriving in California in 1841 during the period of Mexican rule. Relations between the two governments deteriorated as the Mexicans became frustrated with the encroachment of the United States Army and American settlers. In 1846, the Bear Flag Revolt took place at Sonoma, which was the catalyst for the American takeover of California. In 1848, the Treaty of Guadalupe Hidalgo officially annexed California to the United States (Hoover et al. 2002: *xiv*). San José was officially incorporated as a city of the United States in March of 1850 (City of San José, 2010). San José was the first State Capitol and hosted the some of the first sessions of the State Legislature (Bean, 1973: 133).

Record Search

As part of the study, a records search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System by NWIC staff, on February 26, 2010 (NWIC file 09-1026). A supplemental record search was conducted at the NWIC on May 28, 2010 (NWIC file 09-1489). The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official state repository of archaeological and historic records and reports for a 16-county area that includes Santa Clara County, and is housed at Sonoma State University. Additional research was conducted using the files and literature maintained at AES.

The records search and literature review for this study were done to (1) determine whether known cultural resources have been recorded within or adjacent to the study area and determine if the project area has been subject to surveys in the past; (2) assess the likelihood of unrecorded cultural resources based on archaeological, ethnographic, and historical documents and literature; and (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

Other sources reviewed included the *California Inventory of Historical Resources* (California Office of Historic Preservation, 1976), the California Office of Historic Preservation's *Five Views: An Ethnic Historic Site Survey for California* (1988), *California Historical Landmarks* (1990), California Points of Historical Interest (1992), and the *Historic Properties Directory Listing for Santa Clara County* (2008). The *Historic Properties Directory* includes the *National Register of Historic Places*, the *California Register of Historical Resources*, and the most recent listings (through February, 2008) of the *California Historical Landmarks and California Points of Historical Interest*.

The records search found that no recorded sites had been recorded within an 1/8-mile of Alignment B, eight resources had been recorded within an 1/8-mile of Alignment C, no resources within an 1/8-mile of Alignment G and five ~~four~~ resources are within an 1/8-mile of Alignment H. A brief description of each resource is presented in **Table 3-6**.

TABLE 3-6
CULTURAL RESOURCES LOCATED WITHIN 1/8-MILE OF THE APE.

Identifier	Age	Constituents	Author/Date	Alignment
P-43-923	Historical	Oakland Road/Coyote Creek Bridge #37C-0312	Laffey, 1994	Alignment C
CA-SCL-581	Multi-Component	Human Burials, Quartz Crystals, Abalone pendants, shell beads, FAR, shell, charcoal, ash and historical material	Holman, 1984d; Fong and Meyer, 1988	Alignment C
CA-SCL-472H	Historical	Ruins of Historical Ranch Complex with brick-lined well and other possible features	Detelfs and Cartier, 1981a	Alignment C
C-1414	Prehistoric	Midden in a Disturbed context	Holman, 1981a	Alignment C
C-168	Prehistoric	Ground stone, lithic tools	Warburton, 1973a	Alignment C
C-1416	Multi-Component	Queen Anne Cottage, Prehistoric habitation site	Cartier, 1981b	Alignment C
C-872	Prehistoric	FAR	Cartier, 1989c	Alignment C
C-447	Prehistoric	Midden	Deleray, 1988	Alignment C
P-43-348	Prehistoric	FAR and flakes	Cartier, n.d.	Alignment H
P-43-1159 (CA-SCL-826)	Prehistoric	11 Human Burials	Chattan, 1999a	Alignment H
P-43-87 (CA-SCL-70/H)	Multi-Component	Ruins of Historical Ranch Complex & Prehistoric Lithic Scatter	Edwards, 1973; Flynn and Foster, 1977; Breschini, 1979	Alignment H
P-43-355 (CA-SCL-349)	Prehistoric	Lithic Scatter	Flynn, 1978	Alignment H
P-43-380	Historical	Farmhouse ca. 1860	Cooper, 1979	Alignment H

Source: Northwest Information Center, 2010a and 2010b.

The records search also revealed that a total of 162 studies have been conducted within 1/8-mile of the Proposed Alignments B, C, H and G. A total of 13 studies were conducted within Proposed Alignment B. A total of 89 studies were conducted within proposed Alignment C. A total of 18 studies were conducted within proposed Alignment G. A total of 103~~73~~ studies were conducted within Proposed Alignment H. For the sake of brevity, studies are presented in bibliographic format only in **Section 6.0**.

Site indicators for the presence of prehistoric sites in this area may include, but are not limited to: ground depressions, darkened soil areas indicative of middens, fire scorched and/or cracked rock, modified obsidian, chert, or other vitreous materials and grinding stones including manos and metates. Historic era artifacts may include, but are not limited to, metal objects including nails, containers or miscellaneous hardware, glass fragments, ceramic or stoneware objects, or fragments milled or split lumber, trenches, rock walls/fences feature or structure remains such as buildings or building foundations and trash dumps.

Native American Heritage Consultation

On February 18, 2010, the State of California Native American Heritage Commission (NAHC) was asked to review the Sacred Lands file for information on Native American cultural resources on the project site. A response was received on February 18, 2010 indicating that the search of the sacred lands file failed to indicate the presence of Native American cultural resources in the immediate area. The NAHC provided a list of Native American organizations/individuals for further consultation. These individuals were contacted by letter on February 19, 2010. To date no response has been received.

Field Survey

On March 2, 2010 and June 3, 2010, AES archaeologist Melinda McCrary, RPA, conducted a windshield survey of the entire APE of Alignments B, C, G and H. Special attention was paid to undeveloped areas, especially those proximal to Coyote Creek. Previously recorded resources within the APE were attempted to be relocated, however, due to the highly developed nature of the APE, only one resource was relocated. No additional prehistoric or historical era artifacts or resources were observed within the APE for Proposed Alignments B, C, G or H.

3.6.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐	1, 5, 6, 29
b) Cause a substantial adverse change in the significance	☐	☒	☐	☐	1, 5, 6, 29

CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
of an archaeological resource pursuant to §15064.5?					
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐	1, 5, 6, 29
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	1, 5, 6, 29

Questions A-D

The project site has a moderate potential for the discovery of archaeological resources and is considered archaeologically sensitive. No known cultural resources occur within the Proposed Project's area of potential effects. The following known cultural resource sites are located in the immediate vicinity of proposed Alignment C: C-1414, C-168, C-447, P-48-923, C-872, C-1416, C-872 and CA-SCL-581. Additionally, the following known resources are located adjacent to Alignment H: P-43-1159, P-43-380 and P-43-348. The entire project area is paved and has been previously disturbed, except for areas in proximity to Coyote Creek. However, sub-surface deposits associated with the known resources described above, as well as unknown resources, may exist within the project area below the level of previous disturbance. As described in **Section 2.0**, all creek crossings and associated bridges (including Resource P-43-87) will not be impacted as pipelines would be installed via directional drilling, jack and bore methods, and/or suspension from existing structures. Standard measures and mitigation measures presented in **Sections 3.6.3** and **3.6.4** would reduce the potential for impacts to unknown buried cultural resources to a less than significant level. Therefore, impacts are considered ***less than significant with mitigation***.

Cumulative Impacts

Potential cumulative projects in the vicinity of the project area have the potential to impact cultural resources. Archaeological and historic resources are afforded special legal protections designed to reduce the cumulative effects of development. As discussed above, no known protected archaeological or historic resources were identified within the project's area of potential effects. Recommended mitigation provides for monitoring in the vicinity of known areas of sensitivity and the protection of unanticipated discoveries during ground disturbing activities. Therefore, the Proposed Project's incremental contribution to cumulative impacts to cultural resources is considered to be ***less than significant with mitigation***.

3.6.3 STANDARD MEASURES

Should evidence of prehistoric cultural resources be discovered during construction, work within 50 feet of the find shall be stopped to allow adequate time for evaluation and mitigation by a qualified professional archaeologist. The material shall be evaluated and if significant, a mitigation program including collection and analysis of the materials at a recognized storage facility shall be developed and implemented under the direction of the City's Environmental Principal Planner.

3.6.4 MITIGATION MEASURES

CR- 1 Monitoring of site excavation activities shall occur within 100 feet of P-43-1159 and CA-SCL-581 as determined by a qualified professional archaeologist to be necessary to ensure accurate evaluation of potential impacts to prehistoric resources. Further, there shall be monitoring of site excavation activities within 30 feet of P-43-348, P-43-380, P-43-87, P-43-355, C-168, C-447, C-1416, and CA-SCL-472/H as determined by a qualified professional archaeologist to be necessary to ensure accurate evaluation of potential impacts to prehistoric resources.

- If no resources are discovered, the archaeologist shall submit a report to the City's Environmental Principal Planner verifying that the required monitoring occurred and that no further mitigation is necessary.

- If evidence of any archaeological, cultural, and/or historical deposits are found, hand excavation and/or mechanical excavation will proceed to evaluate the deposits for determination of significance as defined by CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the City's Environmental Principal Planner, describing the testing program and subsequent results. These reports shall identify any program mitigation that the Developer shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources.)

CR-2 In the event that human remains and/or cultural materials are found, all project-related construction shall cease within a 50-foot radius in order to proceed with the testing and mitigation measures required. Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California:

a) In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated

with Native American burials on the property in a location not subject to further subsurface disturbance.

b) A final report shall be submitted to the City's Environmental Principal Planner prior to release of a Certificate of Occupancy. This report shall contain a description of the mitigation programs and its results including a description of the monitoring and testing program, a list of the resources found, a summary of the resources analysis methodology and conclusions, and a description of the disposition/curation of the resources. The report shall verify completion of the mitigation program to the satisfaction of the City's Environmental Principal Planner.

3.7 GEOLOGY AND SOILS

3.7.1 SETTING

Regional Geology

The City of San José is located in the eastern portion of Santa Clara Valley. The Santa Clara Valley is oriented northwest to southeast and is bound to the west by the Santa Cruz Mountains and on the east by the Diablo Range. These mountain ranges are composed of sedimentary, granitic, and volcanic rocks of the Mesozoic through Pleistocene ages. The Santa Clara Valley is underlain by a thick sequence of unconsolidated sediments, which are predominately alluvial and consist of silt and clay layers interbedded with coarser-grained sand and gravel deposits (City of San José, 1992).

Soils

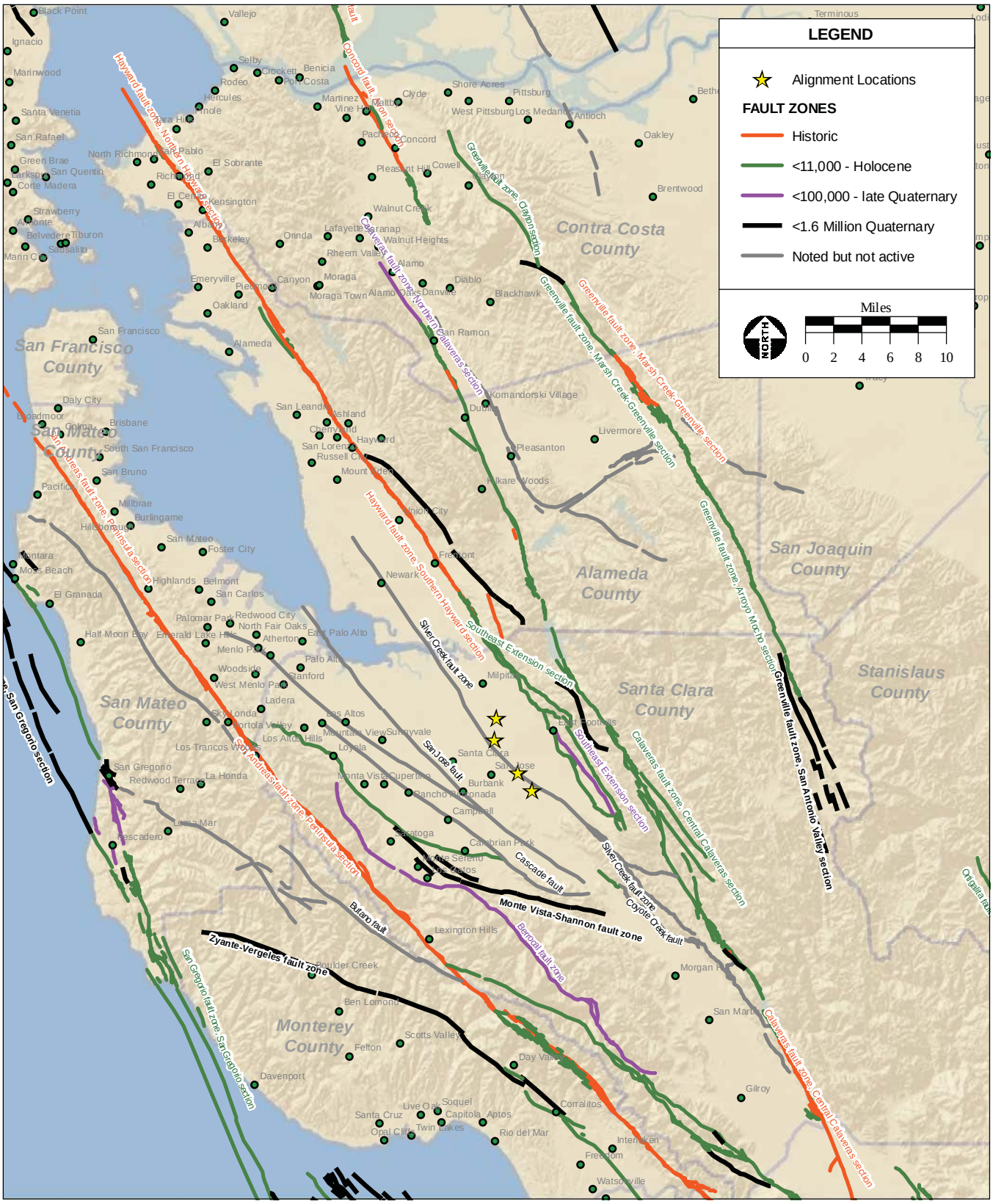
As described above, soils in the Santa Clara Valley are naturally derived from alluvial sources. In developed areas, soils may also be derived from man-made fill imported from various sources. These imported soils may have more favorable characteristics for construction, including better drainage, than native soils (City of San José, 1992).

Seismicity

The City is located in the seismically active region south of San Francisco Bay. The Alquist-Priolo Act defines “active faults” as those that have shown seismic activity during the Holocene period, approximately the past 11,000 years, while “potentially active faults” are those that have shown activity within the Quaternary period, or the past 1.8 million years (CGS, 2003). Major active faults in the area include the San Andreas Fault to the west and the Hayward and Calaveras faults to the east (**Figure 3-4**). None of the proposed alignments are located within an Alquist-Priolo special study zone. As seismic faults are more likely to have future earthquakes if they have had more recent earthquakes along them, faults that have not shown activity within the Holocene or Quaternary periods have much lower rates of movement and correspondingly longer times between significant earthquakes (CGS, 2003). As shown in **Figure 3-4**, a pre-Quaternary (inactive) trace of the Silver Creek fault crosses proposed Alignments G and H. The potential movement on this fault is considered very low (City of San José, 1992).

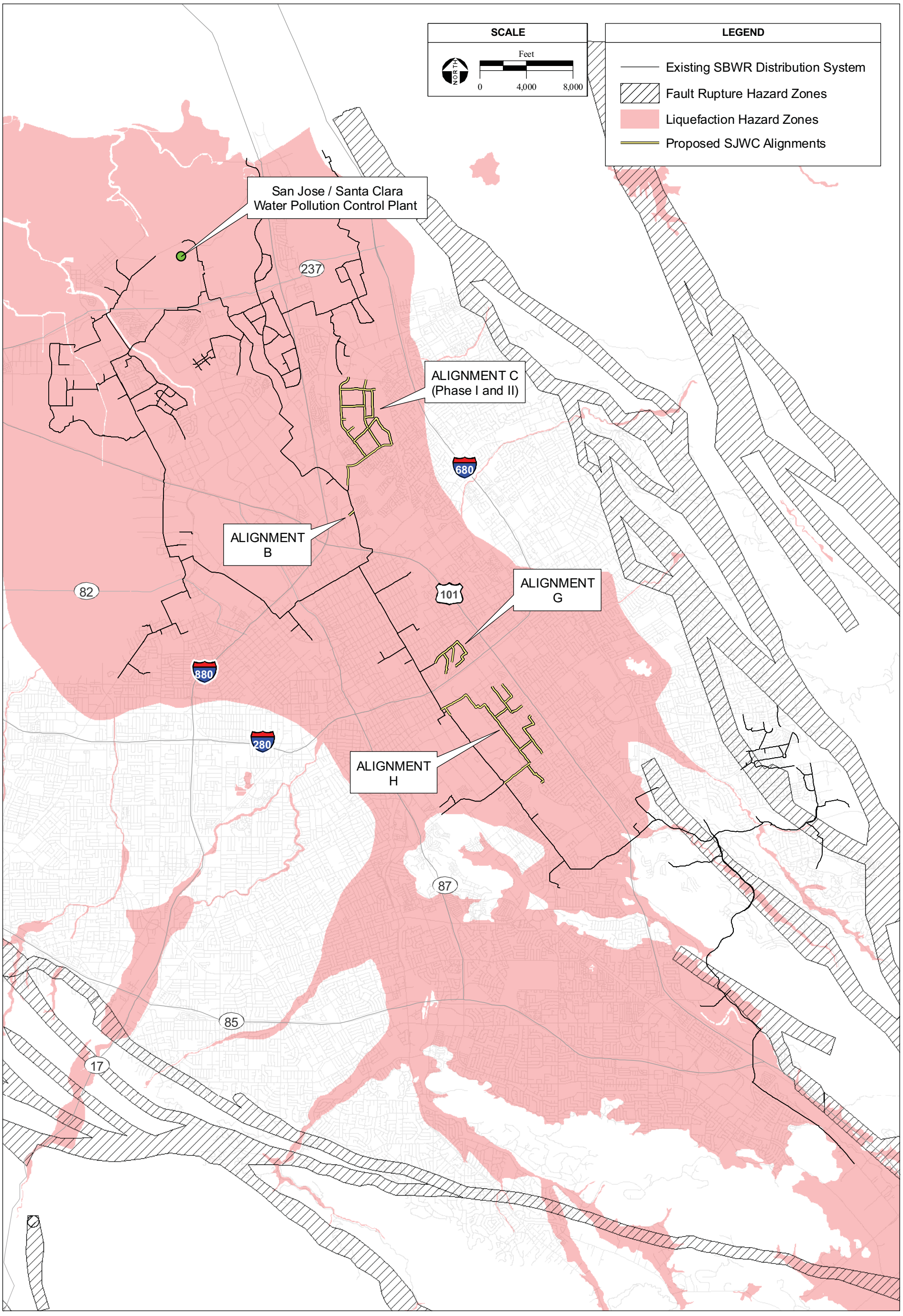
On February 26, 2002, the Santa Clara Board of Supervisors adopted the County Geologic Hazard Zones. The County Geologic Hazard Zones identify areas where available information suggests geologic hazards may be present. As shown on **Figure 3-5**, the proposed alignments are not located within a Fault Rupture Hazard Zone as designated by Santa Clara County.

Liquefaction is the sudden loss of soil strength caused by seismic forces acting on water-saturated, granular soil, leading to a “quicksand” condition generating various types of ground failure. Estimating the potential for liquefaction must account for soil types, soil density, and groundwater table depth, and the duration and intensity of ground-shaking. All four proposed alignments are located within an area identified as a potential liquefaction hazard zone according to the California Geoscience/Hazards map and County Geologic Hazard Zones (**Figure 3-5**).



SOURCE: California Geological Survey, 2009; USGS Earthquake Hazards Program, 2008; AES, 2010

Figure 3-4
Fault Map



SOURCE: Santa Clara County, 10/18/2006; ESRI Server Data, 2010; AES, 2010

Figure 3-5
Santa Clara County Geologic Hazard Zones

3.7.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

GEOLOGY & SOILS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving 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?	☐	☐	☒	☐	1, 4, 23
b) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving strong seismic ground shaking?	☐	☐	☒	☐	1, 4, 23
c) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	1, 4, 23
d) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving landslides?	☐	☐	☐	☒	1, 4
e) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	1, 20, 22
f) 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?	☐	☐	☒	☐	1, 23
g) 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?	☐	☐	☒	☐	1, 20, 22
h) 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?	☐	☐	☐	☒	1

Questions A, B, C, D, and F

The project facilities would be located within a seismically active region, and thus may be subject to strong ground shaking in the event of a major earthquake. Because, all of the proposed alignments are located outside of Alquist-Priolo special study zones (**Figure 3-4**) and Fault Rupture Hazard Zones (**Figure 3- 5**), the likelihood of primary ground rupture in the vicinity of the alignments is low. Because the potential for liquefaction is considered high at each of the sites, liquefaction and differential settlement could occur on the sites during an earthquake.

The proposed alignments would be designed and constructed in conformance with the Uniform Building Code (UBC) Guidelines for Seismic Zone 4 to avoid or minimize potential damage from seismic shaking on the site. Conformance with standard UBC Guidelines would minimize potential impacts to proposed facilities from seismic shaking on the site; this impact is considered less than significant. Standard engineering measures described within **Section 3.7.3**, would require proper preparation of site soils, installation of concrete supports, and isolation valves to be fitted at regular intervals, reducing seismic related impacts to less than significant.

The site is generally flat; therefore the Proposed Project will not be subject to adverse effects associated with landslides. This impact is considered ***less than significant***.

Questions E and G

Construction of the Proposed Project would result in the temporary disturbance of soil and would expose disturbed areas to potential storm events, which could generate accelerated runoff, localized erosion, and sedimentation. In addition, construction activities could expose soil to wind erosion effects that could adversely affect on-site and nearby soils. As described in **Section 3.10.1**, the federal Clean Water Act regulates the discharge of storm water from construction sites. A Storm Water Pollution Prevention Plan (SWPPP) would be prepared and implemented to comply with the State Water Resources Control Board's National Pollution Discharge Elimination System. Best management practices (BMPs), listed in **Section 3.10.3**, would reduce potential construction impacts associated with soil erosion during construction to a less than significant level. Upon completion of construction, affected roadways will be re-surfaced covering soils exposed during construction, and no long-term erodible soils would be created as a result of the Proposed Project.

Soil investigations shall occur prior to construction in accordance with standard measures described in **Section 3.7.3** which would which reduce or eliminate potential impacts from high shrink-swell and limited load-bearing strength soils. Impacts related to expansive soils will be ***less than significant*** with the incorporation if these standard measures.

Question H

The Proposed Project would not include the installation of septic tanks or alternative wastewater disposal systems; therefore ***no impact*** would occur.

Cumulative Impacts

All projects constructed in this area would be subject to seismic hazards such as ground shaking and liquefaction. Construction of other projects in the area would have the potential to contribute to erosion. These impacts are fully mitigable with implementation of construction-period erosion control programs and with standard seismic safety measures incorporated in design. The Proposed Projects will incorporate the standard and mitigation measures below to ensure a less than significant effect; therefore ***no cumulative impacts*** would occur.

3.7.3 STANDARD MEASURES

The following standard measures shall be implemented to ensure minimal impacts from seismic events, including liquefaction:

- The project facilities would be designed and constructed in conformance with the UBC Guidelines for Seismic Zone 4 to avoid or minimize potential damage from seismic shaking.

- A soil investigation report and geo-technical report addressing the potential hazard of liquefaction at each of the sites will be submitted to, reviewed and approved by the City Geologist prior to issuance of encroachment permits. The investigation will be consistent with the guidelines published by the State of California (CDMG Special Publication 117) and the Southern California Earthquake Center ("SCEC" report).

- Design and construction of project facilities will include measures that reduce damage from liquefaction, including:

    - Removal of material that could undergo liquefaction in the event of an earthquake and replacement with stable material.
    - Densification or dewatering of surface and subsurface soils at construction sites.
    - Installation of concrete support and tie-downs to secure buried pipelines and special foundations design.

- Pipeline crossings will include special foundation designs to resist sudden lateral forces and prevent damage due to lurching.

- Pipelines will be fitted with isolation valves at regular intervals and on either side of the Silver Creek Fault. Special flexible materials would be used for pipelines and joints within the Silver Creek Fault Zone.

The following standard measures shall be implemented to ensure minimal impacts involving soils:

- Design and construction of jack and bore tunneling, directional drilling, pipeline trenches, and pipe supports shall compensate for any high shrink-swell and limited load-bearing strength soils found during preconstruction soil investigations. Methods which reduce or eliminate potential impacts from high shrink-swell and limited load-bearing strength soils include:

- For trench stabilization, imported material shall be required at the bottom of trenches.
- Removal of native soil and replacement with engineered fill material that is not prone to shrinking and swelling.
- Soil stabilization, such as lime treatment to alter soil properties to reduce shrink-swell potential to an acceptable level.
- Deepening footing or other support structures in the expansive soil to a depth where soil moisture fluctuation is minimized.

- All underground facilities shall be designed using durable materials. All corrosion systems shall be designed in accordance with the National Association of Corrosion Engineers (NACE) standards for special coatings and/or cathodic protection systems using specific soils data.

3.7.4 MITIGATION MEASURES

None Required.

3.8 GREENHOUSE GAS EMISSIONS

3.8.1 SETTING

Climate Change

Climate change is a global phenomenon attributable to the sum of all human activities and natural processes. The Governor's Office of Planning and Research recommends quantification of greenhouse gas (GHG) emissions, assessment of the significance of any impact on climate change, and identification of mitigation or alternatives that would reduce GHG emissions.

Climate change has the potential to reduce the snow packs in the Sierra Nevada Mountains, cause the sea level to rise, and increase the intensity of wildfires and storms intensity.

Regulatory Background

The following regulatory background gives context to the issues of climate change and importance to reducing GHG in California:

Assembly Bill 32

Signed by the California State Governor on September 27, 2006, Assemble Bill (AB) 32 codifies a key requirement of Executive Order (EO) S-3-05, specifically the requirement to reduce statewide GHG emissions to year 1990 levels by the year 2020. AB 32 tasks the California Air Resources Board (CARB) with monitoring state sources of GHGs and designing emission reduction measures to comply with the law's emission reduction requirements.

AB 32 required that CARB prepare a comprehensive "scoping plan" that identifies all strategies necessary to fully achieve the required 2020 emissions reductions. In early December 2008, CARB released its scoping plan to the public and on December 12, 2008, the CARB board approved the scoping plan.

The scoping plan calls for an achievable reduction in California's carbon footprint. Reduction of GHGs emissions to 1990 levels are proposed, which equates to cutting approximately 30 percent from estimated GHG emission levels projected in 2020, or about 15 percent from today's levels. The scoping plan relies on existing technologies and improving energy efficiency to achieve the 30 percent reduction in GHG emission levels by 2020. The scoping plan provides the following key recommendation to reduce GHG emissions:

- Expand and strengthen existing energy efficiency programs as well as building and appliance standards;
- Achieve a statewide renewable energy mix of 33 percent;
- Develop a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establish targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;

- Adopt and implement measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard.

CEQA Guidelines

Recent amendments to the California Environmental Quality Act (CEQA) Guidelines provide the following direction for consideration of climate change impacts in a CEQA document:

- The determination of significance of GHG emissions calls for a careful judgment by the lead agency;
- A model or methodology shall be used to quantify GHG emissions resulting from a CEQA project;
- Significance may rely on qualitative analysis or performance based standards;
- The CEQA document shall discuss regional and/or local GHG reduction plans;
- A CEQA document shall analyze GHG emissions if they are cumulatively considerable;
- A description of the effects of climate change on the environment shall be included in CEQA documents;
- A CEQA document shall contain mitigation measures, which feasibly reduce GHG emissions.
- GHG analysis in a CEQA document may be Tiered or Streamlined;
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long term commitment to AB 32 implementation.

Bay Area Air Quality Management District CEQA Guidelines

The current approved BAAQMD CEQA Guidelines were released in December 1999. The Guidelines do not include any guidance for the evaluation of project-level GHG emissions, GHG threshold recommendations, or recommendations for determining significance of project-level GHG emissions. In October 2009, the BAAQMD released its draft CEQA thresholds, which include thresholds for criteria pollutants and GHGs. In November 2009, the BAAQMD released new draft CEQA guidelines, which included the October 9, 2009 draft CEQA threshold. Revised draft CEQA guidelines were issued in December 2009. The draft CEQA guidelines were slated to be approved in January 2010 by the BAAQMD Board; however, the BAAQMD Board postponed the approval until their April 2010 meeting.

3.8.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

Greenhouse Gas Emissions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐	1, 11
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐	1, 11

Questions A and B

Construction

Currently the City of San José does not have a Climate Action Plan; therefore, significance will be determined using the draft 2009 BAAQMD GHG threshold (BAAQMD, 2009). As shown in **Table 3-3** the Proposed Project would directly generate GHGs during construction with negligible emissions during operation. Under the Guidelines there is no construction emissions threshold. The Guidelines provide performance-based best management practices (BMPs), that when implemented would reduce construction-related GHG emissions to less than significant levels. Implementation of mitigation measures in **Section 3.8.4** and **Section 3.4.4** would result in the implementation of these performance based BMPs, reducing construction-related GHG emissions. Therefore, after mitigation construction GHG emissions would not result in a significant impact to the environment or conflict with an applicable plan, policy or regulation. This potential impact is considered ***less-than-significant with mitigation***.

Operation

The Guidelines provide an operational GHG threshold of 1,100 tons of GHG emissions per year. As shown in **Table 3-4,** assuming that operation and maintenance of the recycled water pipeline requires approximately one vehicle trip per day, the Proposed Project would emit 1.23 tons per year of GHGs, which is considerably below the BAAQMD's threshold; therefore, the project would not significantly impact the environment or conflict with an applicable GHG plan, policy, or regulation. This is considered a ***less-than-significant*** impact.

Cumulative Impacts

The Proposed Project would not create any significant new sources of GHG emissions; therefore, the project would not contribute to adverse impacts associated with cumulative GHG emissions. This impact is considered ***less than significant***.

3.8.3 STANDARD MEASURES

None required.

3.8.4 MITIGATION MEASURES

GHG-1 SJWC shall ensure through contractual obligations that the following best management practices are implemented during construction to minimize GHG emissions:

- The contractor shall use alternative-fueled (e.g. biodiesel, electric, etc) construction vehicles/equipment of at least 15 percent of their fleet.
- The contractor shall use local building materials of at least 10 percent.
- The contractor shall recycle at least 50 percent of construction waste or demolition materials.

3.9 HAZARDS AND HAZARDOUS MATERIALS

3.9.1 SETTING

Definition of Hazardous Material

A material is considered hazardous if it appears on a list of hazardous materials prepared by a Federal, State, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as:

> "A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed" (CCR, Title 22, Section 66260.10).

Regulatory Context

Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the Resource Conservation and Recovery Act (RCRA) and the State Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

California Occupational Safety and Health Administration (Cal/OSHA)

Cal/OSHA assumes primary responsibility for developing and enforcing state workplace safety regulations. Cal/OSHA regulations concerning the use of hazardous materials in the workplace, as detailed in Title 8 of the CCR, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets (MSDSs) be available to employees and that employee information and training programs be documented.

Regional Water Quality Control Board

The State Water Resources Control Board, and the Regional Water Quality Control Boards (RWQCB), also regulate hazardous substances, materials and wastes through a variety of state statutes including, for example, the Porter Cologne Water Quality Control Act, Cal. Water Code §13000 et seq., and the underground storage tank cleanup laws. Cal. Health and Safety Code §§25280-25299.8. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Any person proposing to discharge waste within any region must file a report of waste discharge with the

appropriate regional board. The project is located within the jurisdiction of the San Francisco Bay RWQCB.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides a Federal fund to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through various enforcement mechanisms, the EPA obtains private party cleanup orders and recovers costs from financially viable individuals and companies once a response action has been completed. Uncontrolled or abandoned hazardous-waste site identification, monitoring, and response activities in states are coordinated though the state environmental protection or waste management agencies.

Project Area Database Report

Database searches were conducted for records of known storage tank sites and known sites of hazardous materials generation, storage, and/or contamination within the vicinity of the proposed pipeline alignments. The environmental database review was accomplished by using the services of the computerized search firm *Environmental Data Resources, Inc*. (EDR). EDR uses a geographical information system to plot locations of past and/or current hazardous materials involvement. The analysis determines if hazards/hazardous materials on adjacent sites will impact surface and/or subsurface conditions on the project site. ~~No known storage tank sites, known site of hazardous materials generation, storage, and/or contamination is located within the right-of-way.~~

According to the EDR report, optional connections 2 and 3 of Alignment H (see **Section 2.5.1**) would pass though the boundaries of a site listed on the National Priority List (NPL) database. The NPL database, also known as “Superfund”, is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The Lorentz Barrel & Drum Company (LBDC) site is located at the intersection of Alma Avenue and 10th Street in San Jose, California; approximately 0.3 miles southwest of the nearest segments of Alignment H. From 1947 to 1987 the LBDC reconditioned used hazardous waste drums through a variety of methods including caustic and acid washing, incineration, blasting with steel shot, and steam cleaning. The reconditioned drums were resealed and repainted with substances such as phenolic epoxy resins, rust inhibitors, and lead-based paints. The residues and cleaning materials were dumped into sumps and basins on-site which then drained to a storm sewer. The LBDC site was listed on the NPL in 1989. The chemical contaminants detected in the on-site soil included volatile organic compounds (VOCs) semi-volatile organic compounds (SVOCs), pesticides, herbicides, polychlorinated biphenyls (PCBs), and inorganics (e.g., arsenic, lead, and heavy metals). In addition, a plume of hazardous materials has been found in the shallow zone groundwater spreading northeast of the LBDC site (EPA, 2010).

Since its listing, the LBDC site has undergone ~~an~~ extensive site remediation and clean up, removing drums, highly contaminated soil, contaminated structures, sumps, debris, and asbestos waste, and fencing and paving the LBDC site has reduced the potential of exposure to contaminated materials at the site. A shallow zone groundwater pump and treatment system and groundwater monitoring is currently in operation (EPA, 2010). The EPA Remedial Project Manager for the LBDC site was consulted to

determine potential risks and appropriate mitigation measures for the Proposed Project. In response, the EPA submitted a written comment letter, dated June 4, 2010, which is provided in **Appendix C**.

No known storage tank sites, known sites of hazardous materials generation, storage, and/or contamination is located within the vicinity of Alignments G, B, and C. The overview and detailed maps indicating the location of any hazardous materials sites are provided in **Appendix B**. The complete EDR reports are located at the City of San José Environmental Services Department for review.

3.9.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

HAZARDS & HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	1
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?	☐	☐	☒	☐	1
c) Emit hazardous emissions or handles hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	1, 20
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?	☐	~~☒~~	☐	~~☐~~ ☒	24, 30
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?	☐	☐	☐	☒	1, 2
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or	☐	☐	☐	☒	1, 2

HAZARDS & HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
working within the project area?					
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency	☐	☐	☒	☐	1 ,25, 26
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	☐	☐	☒	☐	1

Questions A and B

During construction, limited quantities of miscellaneous hazardous substances such as fuels, solvents, oils, and paint could potentially be used during trenching, jack and bore activities and pipeline installation. If properly used, stored, and disposed of, these materials would not be a hazard to people or the environment. The use of such materials during construction would be considered minimal and would not require these materials to be stored in bulk form. Since hazardous materials will not be stored in bulk form, no impacts are expected regarding potential upset and accidental conditions involving the release of hazardous materials into the environment. As such, the project would not create a significant hazard to the public through the routine use, transport, or disposal of hazardous materials.

Construction contractors are required to implement Best Management Practices (BMPs) for the storage, use, and transportation of hazardous materials. The BMPs would be outlined within a site specific Storm Water Pollution Prevention Plan (SWPPP) that would be required as part of a National Pollution Discharge Elimination System (NPDES) Construction General Permit (General Permit). Standard measures discussed in **Section 3.10.3** require the preparation of a SWPPP according to the Construction General Permit. Compliance with the Construction General Permit and implementation of a site specific SWPPP will ensure impacts remain ***less-than-significant***.

Question C

Several elementary schools, middle and high schools will be served by the Proposed Project. Pipelines would be constructed to deliver recycled water to these various schools. Minor amounts of hazardous materials would be used during construction of the pipeline. Compliance with Federal, State and Santa Clara County hazardous materials laws and regulation would minimize the risk to the public presented by these potential hazards, as such, ***no impacts*** would occur to existing or proposed schools.

Question D

~~The Proposed Project facilities~~Construction areas for Alignments C, B, ~~and~~ G, and the majority of Alignment H would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

However, a small portion of the potential pipeline construction for Alignment H that extends along Keyes Street and Senter Road (connection options 2 and 3) has the potential to be impacted by the LBDC related contaminated groundwater plume. Construction or excavation 10 feet or more below the ground surface, has the potential to encounter the contaminated groundwater plume, although the actual depth to the shallow groundwater aquifer depends on field geologic information and may vary. Proposed construction activities that are most likely to encounter hazardous materials include: structural and trench excavation for pipeline installation and boring and jacking of pipelines. Possible impacts that would result from encountering hazardous materials during construction include: potential exposure of workers and the public to toxic materials; further contamination of air, soil, and water; and removal and/or disposal of hazardous materials.

Although the risk of encountering contaminated groundwater is minimal due to the distance from the LBDC site and the relatively shallow depths at which excavation and trenching activities would occur, recommended mitigation measures developed in consultation with the EPA are provided in **Section 3.9.4.** Implementation of these measures would ensure that the Proposed Project would result in a ***less-than-significant*** hazard to the public or the environment.

~~As such, ***no impacts*** would occur that would create a significant hazard to the public or the environment.~~

Questions E and F

None of the proposed alignments are located within two miles of a public or private airport. Alignment C the closest alignment to the Norman Y. Mineta San José International Airport. Alignment C is approximately 2.2 miles from the Norman Y. Mineta San José International Airport. Neither temporary construction activities nor the permanent installation of the pipelines would affect the safe operation of any local airport or result in a safety hazard for people residing or working in the project area; therefore, ***no impacts*** would occur.

Question G

Pipelines would be installed in trenches dug within existing roadways, or attached to structures to cross existing creeks or streams. Installation of pipelines would require temporary road closure or lane reductions. Encroachment permits are required for such work to occur. Permits will be obtained from the City of San José and Santa Clara Valley Water District (SCVWD). These permits are designed to protect the public by providing a system of notification to providers of emergency or other important services of road closures. Compliance with these requirements minimizes the safety and health hazards associated with construction activities. The Proposed Project would not be expected to interfere with an adopted emergency response plan or emergency evacuation plan, as such, ***no impacts*** would occur. Potential traffic impacts are discussed further in the Traffic/Transportation section.

Question H

No wildlands are located in the vicinity of the Proposed Project, and the development of the recycled water pipelines would occur within an existing urban area in public right-of-ways along roadways surrounded by residential, commercial, and industrial uses. Therefore, the Proposed Project is not

expected to expose people or structures to a significant risk of loss, injury or death involving wildland fires. As such, impacts associated with the potential for wildland fires area considered ***less than significant***.

Cumulative Impacts

Development of the project in combination with other similar projects has the potential to increase the risk for accidental release of hazardous materials. Each individual project would require an evaluation as to potential hazardous materials risks and threat to public safety including risks associated with transportation/use/disposal of hazardous materials, accidental release of hazardous materials into the environment, hazards to sensitive receptors (including schools), and listed hazardous materials sites that could affect environmental conditions along roadway alignments. Each related project would be required to follow local, state, and federal laws pertaining to hazards and hazardous materials. Through compliance with these laws, future potential cumulative impacts would be minimized. Therefore, through full compliance with local, state, and federal laws pertaining to hazardous materials, cumulative impacts would be considered ***less than significant*** and no mitigation is required.

3.9.3 STANDARD MEASURES

In the event that suspected hazardous materials are encountered during construction activities, all work shall be halted until a professional hazardous materials specialist or an equivalent qualified individual can identify the materials. If the materials are determined to be hazardous, the materials should be remediated and/or disposed of following applicable regulatory agency regulations and/or guidelines. All evaluation, remediation, treatment and/or disposal of hazardous waste should be supervised and documented by a qualified hazardous waste specialist.

3.9.4 MITIGATION MEASURES

The following mitigation measures were developed in consultation with the EPA:

HZM-1 A health and safety plan ("H&S Plan") that includes the following elements shall be developed for portions of the project site that extend down Keyes Street and Senter Road to ensure protection of field workers:

a. Site control (contaminated, supporting, and decontamination zones should be established in case contaminated materials are encountered in excavation and brought to the surface),
b. Decontamination plan,
c. Emergency Response Plan,
d. Confined space procedures,
e. Spill containment program,
f. Hazard communication plan

The H&S Plan also should require that all site workers conducting field excavation work within the contaminated groundwater plume area receive 40 hours of health and safety training with an annual refresher course. Proper personal protection equipment should be used during the work.

Proper field monitoring instruments should also be used at the construction site all the time during the excavation.

HZM-2. A waste management plan ("WMP") shall be developed for portions of the project site that extend down Keyes Street and Senter Road in the vicinity of the contaminated groundwater plume. The WMP shall address procedures for dealing with contamination that may be encountered during the excavation process (e.g., groundwater and potentially contaminated soils), including waste handling procedures, monitoring, temporary storage, and final disposal in accordance with applicable state and federal legal requirements.

HZM-3. A construction schedule shall be provided to EPA at least one week in advance of the commencement of construction within the vicinity of the contaminated groundwater plume so that EPA staff may coordinate their schedules in order to observe the construction activities.

HZM-4. If the planned depth of excavation is such that it is anticipated local dewatering activity will be necessary in the vicinity of the contaminated groundwater plume, the Applicant shall advise the EPA a week in advance of the excavation and document the pumping rates, pumping volume, and duration. Heavy dewatering that has the potential to mobilize contaminants towards Senter Road and Coyote Creek shall not take place. Methods for the disposal of pumped groundwater during dewatering activities shall be developed in consultation with the EPA.

HZM-5. Following construction, a brief construction summary report shall be submitted to the EPA to document how the pipeline construction was performed (e.g., construction date, monitoring data, depth of trenching or excavation, dewatering activities, and waste management practice, etc.).

~~None required.~~

3.10 HYDROLOGY AND WATER QUALITY

3.10.1 SETTING

Regulatory Context

Clean Water Act

The discharge of stormwater from the City's municipal storm sewer system is regulated primarily under the federal Clean Water Act (CWA) and California's Porter-Cologne Water Quality Control Act. The San Francisco Bay Regional Water Quality Control Board (RWQCB) implements these regulations at the regional level. Under the CWA, the RWQCB has regulatory authority over actions in waters of the United States, through the issuance of water quality certifications. Under Section 401 of the CWA, permits are issued in combination with permits issued by the Army Corps of Engineers (USACE), under Section 404 of the CWA. When the Water Board issues Section 401 certifications, it simultaneously issues general Water Discharge Requirements for the project, under the Porter-Cologne Water Quality Control Act. Activities in areas that are outside of the jurisdiction of the USACE (e.g., isolated wetlands, vernal pools, or stream banks above the ordinary high water mark) are regulated by the Water Board, under the authority of the Porter-Cologne Water Quality Control Act. Activities that lie outside of USACE jurisdiction may require the issuance of either individual or general waste discharge requirements (WDRs) from the Water Board. Under Section 303(d) of the CWA, the United States Environmental Protection Agency (USEPA) publishes a list every two years of impaired bodies of water for which water quality objectives (WQOs) are not attained. Total Maximum Daily Loads (TMDLs) are established for contaminants of concern in order to ensure contamination levels decrease over time.

National Pollution Discharge Elimination System

Under Section 402(p) of the Clean Water Act, the USEPA established a National Pollution Discharge Elimination System (NPDES) to enforce discharge standards from a variety of sources. Both point source and non-point-source pollution is covered under the NPDES. Dischargers in both categories can apply for individual discharge permits, or apply for coverage under the General Permits that cover certain qualified dischargers. The State Water Resources Control Board (SWRCB) has adopted one statewide Construction Activities General Permit (Order No. 2009-0009-DWQ) for all dischargers disturbing equal to or greater than one acre.

San Francisco Bay Basin Water Quality Control Plan

Stormwater is a significant contributing factor to pollution in the San Francisco Bay. In 1986, the SFRWQCB adopted the San Francisco Bay Basin Water Quality Control Plan (Basin Plan) to establish goals for improvement of water quality throughout the Bay Area. The Plan contains information that describes the values associated with the Bay and policies regarding future uses of the Bay and shoreline.

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) was developed in accordance with the requirements of the Basin Plan to reduce water pollution associated with urban stormwater runoff. The City of San José is a Co-permitee under the SCVURPPP's Municipal Regional Stormwater Permit No. CAS6122008 (Order No. R2-2009-0074), adopted on October 14, 2009.

In addition to the narrative description of water quality and beneficial uses, the Basin Plan also created quantitative goals for water quality in the Bay. Especially pertinent to this project are goals for nitrates and total dissolved solids (TDS), which for groundwater designated for municipal supply are the Title 22 maximum contaminant limits (MCLs) for drinking water, incorporated by reference into the Basin Plan. **Table 3-7** identifies ~~additional~~ these specific groundwater quality objectives outlined within the Basin Plan.

TABLE 3-7
GROUNDWATER QUALITY OBJECTIVES OF THE SAN FRANCISCO BAY BASIN

~~**Central Basin**~~**Constituent**	**Limit**
Total Dissolved Solids	~~Ambient or~~ 500 mg/l, ~~whichever is lower~~recommended 1,000 mg/L, upper 1,500 mg/L, short term
Nitrate (NO3)	45 mg/l
	~~**Fringe Sub-basins**~~
~~Total Dissolved Solids~~	~~Ambient or 1000 mg/l, whichever is lower~~
~~Nitrate (NO3)~~	~~45 mg/l~~

Source: SFBRWQCB, 2007.

The SWRCB's 2009 Final Recycled Water Policy states that the preferred method for dealing with these contaminants is a salt and nutrient management plan. The RWQCB would be responsible for amending the Basin Plan to reflect local efforts to develop these management plans. In the future, monitoring specific projects' impact to groundwater may be covered by this more general management plan.

California Code of Regulations - Title 22, Division 4, Chapter 3 – Water Recycling Criteria

This section of the California Code of Regulations, commonly referred to as Title 22, establishes the recycled water quality criteria, acceptable uses of recycled water, wastewater treatment requirements for each use, use area requirements, engineering report requirements, reporting and record keeping requirements, and design requirements for operational reliability of treatment. The regulations establish acceptable levels of constituents in recycled water for a range of uses and prescribe means for assurance of reliability in the production of recycled water. Criteria for the production of recycled water include water quality standards, treatment process requirements, operational requirements, and treatment reliability requirements. The intent of the regulations is to ensure the protection of public health associated with the use of recycled water. Title 22 recycled water regulations for a specific reuse category are based on the expected degree of contact with the recycled water.

Since the adoption of Title 22 in 1978, the use of recycled water for non-potable purposes has expanded throughout the state and is projected to continue to grow over the next several decades. In addition, technical and health effects studies have been conducted, and treatment technology has improved since 1978. As a result, the safe use of recycled water for non-potable purposes has continued, while public health and environmental protection has been maintained. Under Title 22, the highest level of wastewater treatment, identified as "disinfected tertiary recycled water," may be used for the full range of

non-potable uses, including irrigation of food crops, parks and playgrounds, school yards, residential landscaping, golf courses and cemeteries.

Regional Hydrology

The project is located in the Santa Clara Subbasin ~~Valley watershed~~ in the Coyote ~~Creek~~ Watershed ~~subbasin~~. Coyote Creek is a waterway that originates from Mt. Sizer in the Diablo Range southeast of San José and flows northwest to empty into the Lower South San Francisco Bay. It is the largest watershed in the South Bay, draining approximately 320 square miles. Coyote Creek is mostly urbanized within the proposed project area, and supports some riparian habitat. Coyote Creek has been recently listed impaired for trash on the Section 303(d) list.

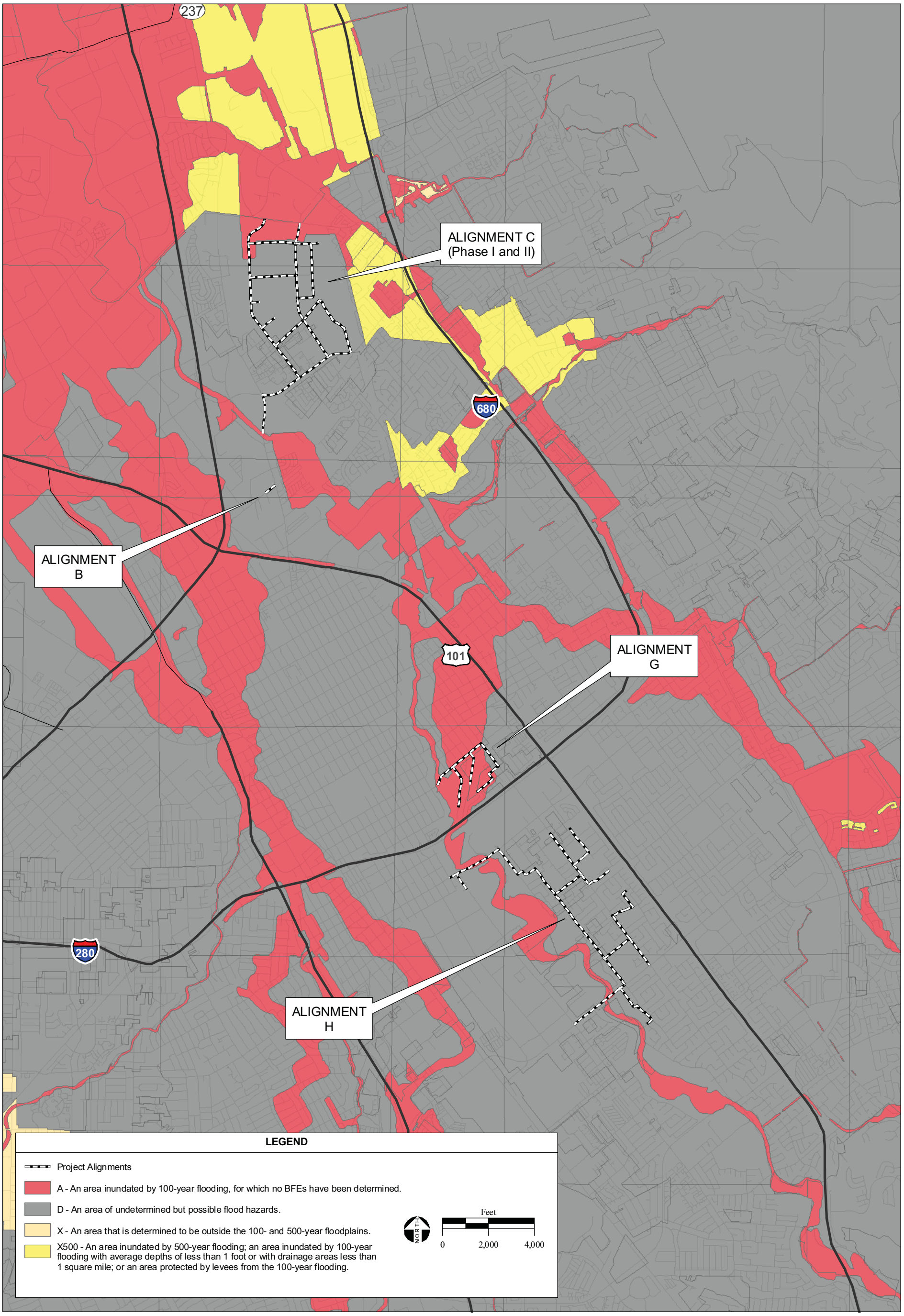
According to FEMA maps, Coyote Creek, its banks, and surrounding lands are within the 100-year flood zone (Santa Clara Valley Urban Pollution Prevention Program). Alignment G lies almost entirely within the 100-year flood zone, and Alignments H and C are in the 100-year flood zone where they cross the Coyote Creek watershed (**Figure 3-6**).

Groundwater

The proposed alignments are within the Santa Clara subbasin of the Santa Clara Valley Groundwater Basin. The Santa Clara subbasin is bounded by the Diablo Range to the west and the Santa Cruz Mountains to the east, the town of Morgan Hill to the south, and the border of Santa Clara County to the north (California Groundwater Bulletin 118, 2004).

A Groundwater Vulnerability Study was conducted on the Santa Clara Valley groundwater basin for the Santa Clara Valley Water District to aid in the identification of sensitive groundwater resources and the establishment of protective measures (Todd Engineers & Kennedy/Jenks, 2009). The Shallow Aquifer (less than 100 ft deep) in the northern area of the groundwater basin is subject to saltwater intrusion from tidal waters moving inland as a result of historic pumping and land subsidence, causing high concentrations of mineral salts to appear in the water table. This area is more than 2 miles from the nearest proposed project pipeline alignment with no direct aquifer connection. ~~TDS as high as 3,900 mg/L was observed in the community of Alviso, located to the north of the project alignments (Todd Engineers & Kennedy/Jenks 2009).~~ Typically, TDS concentrations in the Shallow Aquifer are below the upper end of the MCL range: 1,000 mg/L. TDS concentrations in the Principle Aquifer (200 to 1,200 ft bgs), from which most drinking water wells are supplied, is generally below the recommended MCL of 500 mg/L (Todd Engineers & Kennedy/Jenks 2009). Depth to groundwater through the project area ranged from 10 to 100 feet below ground surface (City of San José, 2010; Todd Engineers, 2009).

Groundwater sensitivity is a description of the relative ease with which contaminants on or near the land surface to migrate into ground water, and is comprised of a number of factors including intrinsic properties of the aquifer and the materials in the unsaturated zone. Numerical scores are given to groundwater formations with 10 being most sensitive and 1 being least sensitive to potential contaminating activities (Todd Engineers & Kennedy/Jenks 2009). The SCVWD has indicated sensitivity information for the proposed alignments which is summarized in **Table 3-8**.



SOURCE: HydroScience Engineers, 2010; FEMA Q3 Flood Data, 1996; AES, 2010

Figure 3-6
FEMA Flood Zones

TABLE 3-8
AQUIFER SENSITIVITY AT THE PROJECT ALIGNMENTS

Alignment	Capacity (AFY)	Sensitivity Score
G	116	7-8
H	877	5-9
B	14.9	6-8
C	610	2-6

Source: Whitman, 2009.

Recycled Water Use

Recycled water from the South Bay Water Recycling program is currently used for landscaping and agricultural irrigation by end users throughout San José, Santa Clara, and Milpitas in accordance with the Master Reclamation Permit (MRP) for the South Bay Water Recycling Program issued by the RWQCB (Order 95-117). The MRP requires SBWR to adhere to Title 22 standards for recycled water quality, and to ensure that users comply with applicable uniform statewide reclamation criteria.

Water quality testing at the SJ/SC WPCP between 2004 and 2007 revealed TDS levels from SJ/SC WPCP tertiary effluents to be within a range of approximately 650 to 750 mg/L. The TDS concentration exceeded 750 mg/L in very few instances. Relatively high ambient TDS levels have been observed in the Santa Clara subbasin, ranging from 380 to 470 mg/L in the deep aquifer, and from 520 to 860 mg/L (Santa Clara Water District, 2009).

Groundwater Mitigation and Monitoring Program

Infiltration of recycled water from irrigation into the groundwater subbasin is monitored extensively under the SBWR Groundwater Mitigation and Monitoring Program (GMMP) prepared in accordance with the recommendations of the Final Environmental Impact Report for the San José Nonpotable Reclamation Program (City of San José, 1992) for the use of recycled water on irrigated sites. The purpose of the GMMP is to monitor and evaluate the chemical quality of groundwater in the Santa Clara groundwater subbasin to ensure it is not adversely impacted as a result of irrigating with recycled water. A network of monitoring wells was established in twelve specific sites of recycled water use, which were monitored prior to and during recycled water use from 1997-2009. Monitoring under the GMMP is ~~continuous~~ conducted annually, and provides an important, if limited source of information on groundwater quality in the Santa Clara subbasin.

In November 2009, the City of San José commissioned a study, entitled *Technical Memorandum 2 GMMP Database and Water Quality Evaluation (Todd Engineers, 2009),* to evaluate the GMMP analytical results and determine if there is evidence of impacts to groundwater quality from recycled water irrigation. "Evaluation of the GMMP data indicates that variability in groundwater quality exists at different locations in the groundwater basin and between the shallow and deep aquifer zones, and that some changes in groundwater have occurred between 1997 and 2009. It is not clear that the cause of water quality changes is deep percolation of the recycled water used for irrigation," (Todd Engineers, 2009). ~~The baseline study showed rising levels of nitrates before recycled water use began in 1998, indicating a~~

~~source of contamination other than recycled water. During the irrigation period, some wells showed an increase in contaminants of concern, and some a decrease (Todd Engineers, 2009), which indicates variability of groundwater quality between locations and between aquifers. The results of the study indicate no strong correlation between rising TDS or nitrate levels and the application of recycled water. The study concluded that while recycled water irrigation can lead to impacts to groundwater, additional factors are affecting the groundwater in the well locations, leading to inconsistent trends in contamination levels~~However, the report also notes that even though the concentration of contaminants may be lower in recycled water than in ambient groundwater, it is possible that the evaporation of recycled water applied to irrigation sites could lead to the concentration of contaminant levels, and the resulting deep percolation could be affecting groundwater quality (Todd Engineers, 2009).

3.10.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

HYDROLOGY & WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	1,12, 19, 20, 21
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)?	☐	☐	☒	☐	1, 19, 20, 21, 22
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 that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐	1,12, 19, 20, 21
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐	1,12, 19, 20, 21

HYDROLOGY & WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐	1,12, 19, 20, 21
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐	1,19, 20, 21, 22
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒	1, 7, 12
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒	1, 7, 12
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒	1, 7, 12
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒	1, 7, 12

Questions A, C, and F – Water Quality

Construction

Project construction would involve earth moving, grading, trenching, and excavation activities, which would result in the temporary alteration of the existing topography of the project site in excess of one acre. These activities could result in temporary changes to on-site drainage patterns, potentially resulting in increased erosion or siltation associated with construction. Water quality decreases with increased turbidity and total suspended solids (TSS) that result from erosion and siltation of stockpiled soil or open excavations, influencing downstream ecology. Construction equipment and materials have the potential to leak fluids, thereby discharging additional pollutants into stormwater. Construction-site pollutants may include sediments, oils and greases, concrete, paints, and adhesives. Discharge of these pollutants could result in contamination of area drainages, which could result in downstream surface water and shallow groundwater contamination. Erosion and discharge of pollutants during construction could result in significant impacts to water quality.

The applicant will apply for coverage under the State's Construction Activities Stormwater General Permit. The permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) that will prevent impacts to surface water

and groundwater quality from erosion, sediment, trash, and other pollutants. The SWPPP will identify BMPs and the location of erosion control features recommended to direct and filter stormwater runoff during construction of proposed recycled water pipelines. Standard BMPs that may be applicable to the Proposed Project are listed in **Section 3.10.3**. Implementation of these standard measures will reduce the potential for impacts to water quality as a result of construction activities to ***less than significant***.

Operation

Surface Water

The California Department of Public Health was delegated the responsibility to develop statewide uniform recycling criteria to ensure public health protection while maximizing the benefit of the availability of treated wastewater to replace various uses of potable water. Recycled water is defined by Title 22 as "water, which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource" (Water Code, §13050). Recycled water distributed through the SBWR system is classified as disinfected tertiary recycled water, which is considered the highest quality recycled water. During this treatment process, wastewater is filtered to a tertiary level and disinfected prior to distribution.

Users of recycled water under the Proposed Project would be required to comply with the provisions of the existing SBWR Master Reclamation Permit (MRP), including the prevention of runoff from sites irrigated with recycled water. Self-inspection reports would be submitted annually to SBWR in order to ensure compliance with water reclamation standards. Compliance with the MRP would continue to ensure the production and use of recycled water conforms to the statewide uniform reclamation criteria outlined in Title 22 and the reclamation provisions within the Water Code. The MRP would ensure users apply recycled water at rates to prevent ponding and discharge to surface waters. The MRP would provide direction on the use of recycled water during the wet season, preventing commingling of recycled water with surface water. Because application rates would be controlled to prevent ponding, and recycled water would be applied according to the MRP, the use of recycled water would not impact surface water quality. These provisions would ensure impacts to surface water quality from recycled water use are ***less than significant***.

Groundwater

Recycled water use as a result of the Proposed Project could change groundwater quality as applied water leaches through the soil into the underlying aquifer. Potential impacts to groundwater quality as a result of ongoing recycled water irrigation through the SBWR system are monitored ~~extensively~~ through the Groundwater Mitigation and Monitoring Program (GMMP), which is a requirement of the MRP. As discussed above, the City of San José commissioned a study to evaluate the results of the ongoing GMMP and determine if there is evidence of impacts to groundwater quality from recycled water irrigation. ~~The study concluded that the current use of recycled water for irrigation has not been shown to reduce groundwater quality.~~ The study concluded that while recycled water irrigation can lead to impacts to groundwater, additional factors are affecting the groundwater in the well locations, leading to ~~inconsistent~~ variable trends in contamination levels between locations and between aquifers (Todd Engineers, 2009).

Because ambient groundwater quality is a concern, ~~mitigation~~ standard measures ha~~s~~ve been recommended for the Proposed Project in **Section 3.10.3~~4~~** that would~~o~~ reduce potential impacts to a less

than significant level. Implementation of proposed ~~mitigation~~standard measures would require that proposed recycled water use areas under the Proposed Project be incorporated in the current GMMP, consistent with the measures identified in the Final EIR for the San José Nonpotable Reclamation Program (City of San José, 1992). The monitoring program would ensure impacts to groundwater are prevented and allow for the alteration of use patterns should the potential for impacts be observed. Therefore, with the implementation of recommended ~~mitigation~~ standard measures and compliance with the terms of the SBWR MRP, potential impacts to groundwater quality are considered ***less than significant***.

Question B – Groundwater Supplies

Groundwater pumping rates would not increase as a result of the project, and the project will not decrease nearby well production. No new impervious surfaces would be developed by the Proposed Project; therefore, groundwater recharge would not be affected. Because the Proposed Project would not deplete groundwater supplies or affect groundwater recharge, this impact is considered ***less than significant***.

Questions D and E - Drainage and Flooding

Construction activities that take place in the 100-year flood zone near Coyote Creek will not have significant potential to increase the rate or amount of flooding, as construction will not alter the streambed, impede the flows, or generate significant amounts of runoff over the current conditions. Proposed recycled water pipelines would be constructed within existing roadways that have been developed to account for regional drainage considerations. All project features will be located underground, and all surfaces will be graded to existing elevations after construction is completed. No modification of existing drainage channels will be made. To prevent impacts to surface water resources, the pipeline would be constructed either beneath Coyote Creek using jack and bore tunneling or directional drilling techniques, or suspended from existing structures. Recycled water use will not create additional runoff volume, as the creation of runoff from irrigation with recycled water is prohibited under the SBWR MRP. Therefore, impacts associated with drainage and flooding are considered ***less than significant***.

Questions G, H, I, and J – Flood Hazards and Catastrophic Events

One hundred-year flood flow patterns will be not be altered by the proposed recycled water pipelines. All project features will be located underground or suspended from existing structures over waterways above the flood level, and all surfaces will be graded to existing elevations after construction is completed. The Proposed Project does not have the potential to cause the failure of a dam or levee. Although the San Francisco Bay Area is seismically active, all project features will either be below ground or above ground, above the flood level, and therefore will not be subject to inundation by seiche, tsunami, or mudflows. ***No impact*** would occur.

Cumulative Impacts

Construction of the Proposed Project and potential cumulative projects in the vicinity of the project site, including growth resulting from build-out of the City's General Plan, would be required to comply with the NPDES general permit for construction activities, which is intended to reduce the potential for cumulative

impacts to water quality during construction. Therefore, impacts associated with cumulative construction related water quality effects would be ***less than significant***.

The Proposed Project would not result in additional stormwater run-off or contribute to cumulative effects associated with drainage. Similar to the Proposed Project, cumulative development projects would be subject to local, state, and federal regulations designed to minimize cumulative impacts to water resources. Standard measures for the Proposed Project in combination with compliance with City, state, and federal regulations, are expected to reduce cumulatively considerable impacts to water quality a less than significant level. Therefore, the Proposed Project's incremental contribution to cumulative effects to water resources is considered ***less than significant***.

3.10.3 STANDARD MEASURES

Implementation of the following measures, consistent with NPDES general permit and City Policy requirements, will reduce potential construction impacts to surface water quality to less than significant levels.

Operation Measures

In accordance with the SBWR Master Reclamation Permit, recycled water use under the Proposed Project shall be monitored through the existing South Bay Water Recycling Groundwater Mitigation and Monitoring Plan (SBWR GMMP). The SBWR GMMP was prepared in accordance with the Final Environmental Impact Report for the San José Nonpotable Reclamation Program (City of San José, 1992) and is a requirement of the South Bay Water Recycling Program Water Reclamation Requirements (Order 95-117) issued by the RWQCB.

Construction Measures

Prior to the commencement of any clearing, grading or excavation activities, the project shall comply with the State Water Resources Control Board's NPDES General Construction Activities Permit, to the satisfaction of the Director of Public Works, as follows:

1. The applicant shall file a Notice of Intent (NOI) to comply with the conditions of the General Permit with the SWRCB.
2. The applicant shall develop, implement and maintain a Storm Water Pollution Prevention Plan (SWPPP) to control the discharge of stormwater pollutants including sediments associated with construction activities;
3. The project shall incorporate Best Management Practices (BMPs) into the SWPPP to control the discharge of stormwater pollutants including sediments associated with construction activities. BMPs identified in the SWPPP could include but are not limited to the following from Blueprint for a Clean Bay published by the Bay Area:

    - Erosion Prevention and Sediment Control
        - Plan the development to fit the topography, soils, drainage pattern and natural vegetation of the site.

- Delineate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent excessive or unnecessary disturbances and exposure.
- Phase grading operations to reduce disturbed areas and time of exposure.
- Avoid excavation and grading during wet weather.
- Limit on-site construction routes and stabilize construction entrance(s) and exit(s).
- Remove existing vegetation only when absolutely necessary.
- Construct diversion dikes and drainage swales to channel runoff around the site.
- Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.
- Cover stockpiled soil and landscaping materials with secured plastic sheeting and divert runoff around them.
- As a back-up measure, protect drainage courses, creeks, or catch basins with fiber rolls, silt fences, sand/gravel bags and/or temporary drainage swales.
- Once grading is completed, stabilize the disturbed areas using permanent vegetation as soon as possible. Use temporary erosion controls until vegetation is established.
- Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.
- Use terracing, rip rap, sand/gravel bags, rocks, fiber rolls, and/or temporary vegetation on slopes to reduce runoff velocity and trap sediments. Do not use asphalt rubble or other demolition debris for this purpose.
- Use check dams in temporary drains and swales to reduce runoff velocity and promote sedimentation.
- Protect storm drain inlets from sediment-laden runoff. Storm drain inlet protection devices include sand/gravel bag barriers, filter fabric fences, block and gravel filters, catch basin filter inserts, excavated drop inlet sediment traps, or a combination of these.
- Collect and detain sediment-laden runoff in sediment traps (an excavated or bermed area or constructed device) to allow sediments to settle out prior to discharge.
- Use sediment controls and filtration to remove sediments from dewatering discharges.
- Prevent construction vehicle tires from tracking soil onto adjacent streets by constructing a temporary stone pad with a filter fabric underliner near the site exit where dirt and mud can be removed.
- When cleaning sediments from streets, driveways and paved areas on construction sites, use dry sweeping methods where possible. If water must be used to flush pavement, collect runoff to settle out sediments and protect storm drain inlets.

- Prevent Spills and Leaks
  - Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Designate specific areas of the construction site, well away from creeks or storm drain inlets, for vehicle and equipment parking and routine maintenance.
  - Perform major maintenance, repair jobs and vehicle and equipment washing off-site when feasible, or in designated and controlled areas on-site.

- If you must drain and replace motor oil, radiator coolant, or other fluids on-site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in labeled separate containers, and recycle whenever possible. Note that in order to be recyclable, such liquids must not be mixed with other fluids. Non-recycled fluids generally must be disposed of as hazardous wastes.
- Sweep up spilled dry materials (e.g., cement, mortar, or fertilizer) immediately. Never attempt to "wash them away'' with water, or bury them. Use only minimal water for dust control.
- Clean up liquid spills on paved or impermeable surfaces using "dry'' cleanup methods (e.g., absorbent materials like cat litter, sand or rags).
- Clean up spills on dirt areas by digging up and properly disposing of the contaminated soil.
- Report significant spills to the appropriate spill response agencies immediately

- Store Materials Under Cover
  - Store stockpiled materials and wastes under a temporary roof or secured plastic sheeting or tarp.
  - Berm around storage areas to prevent contact with runoff.
  - Plaster or other powders can create large quantities of suspended solids in runoff, which may be toxic to aquatic life and cause serious environmental harm even if the materials are inert. Store all such potentially polluting dry materials —especially open bags— under a temporary roof or inside a building, or cover securely with an impermeable tarp. By properly storing dry materials, you may also help protect air quality, as well as water quality.
  - Store containers of paints, chemicals, solvents, and other hazardous materials in accordance with secondary containment regulations and under cover during rainy periods.

- Cover and Maintain Dumpsters
  - Cover open dumpsters with plastic sheeting or a tarp. Secure the sheeting or tarp around the outside of the dumpster. If your dumpster has a cover, close it.
  - If a dumpster is leaking, contain and collect leaking material. Return the dumpster to the leasing company for repair/exchange.
  - Do not clean dumpsters on-site. Return to leasing company for periodic cleaning, if necessary.

- Keep fresh concrete and cement mortars out of gutters, storm drains, and creeks
  - Locate mortar/stucco mixers inside bermed areas to avoid discharge to street or storm drains.
  - Avoid mixing excess amounts of fresh concrete or cement mortar.
  - Store dry and wet materials under cover, protected from rainfall and runoff.
  - Wash out concrete transit mixers only in designated wash-out areas where the water will flow into settling ponds or onto dirt or stockpiles of aggregate base or sand. Pump water from settling ponds to the sanitary sewer, where allowed. Whenever possible,

recycle washout by pumping back into mixers for reuse. Never dispose of washout into the street, storm drains, drainage ditches, or creeks.
    - Whenever possible, return contents of mixer barrel to the yard for recycling. Dispose of small amounts of excess concrete, grout, and mortar in the trash.

- Service and maintain portable toilets
    - Inspect portable toilets for leaks.
    - Be sure the leasing company adequately maintains, promptly repairs, and replaces units as needed.
    - The leasing company must have a permit to dispose of waste to the sanitary sewer.
    - Do not place on or near storm drain inlets.

- Dispose of cleared vegetation properly
    - Do not dispose of plant material in a creek or drainage facility or leave it in a roadway where it can clog storm drain inlets.
    - Avoid disposal of plant material in trash dumpsters or mixing it with other wastes. Compost plant material or take it to a landfill or other facility that composts yard waste (check with the local planning or building department for more information).

- Plan roadwork and pavement construction to avoid stormwater pollution
    - Apply concrete, asphalt, and seal coat during dry weather to prevent contaminants from contacting stormwater runoff.
    - Cover storm drain inlets and manholes when paving or applying seal coat, slurry seal, fog seal, etc.
    - Always park paving machines over drip pans or absorbent materials, since they tend to drip continuously.
    - When making saw-cuts in pavement, use as little water as possible. Cover each catch basin completely with filter fabric during the sawing operation and contain the slurry by placing sand/gravel bags around the catch basin. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site.
    - Wash down exposed aggregate concrete only when the wash water can: (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
    - Allow aggregate rinse to settle, and pump the water to the sanitary sewer if allowed by your local wastewater authority.
    - Never wash sweepings from exposed aggregate concrete into a street or storm drain. Collect and return to aggregate base stockpile, or dispose with trash.
    - Recycle broken concrete and asphalt (check with the local planning or building department for more information).

The project applicant shall comply with the City of San José Grading Ordinance, including erosion and dust control during site preparation and with the City of San José Zoning Ordinance requirements for

keeping adjacent streets free of dirt and mud during construction. Prior to the issuance of a grading permit, the applicant may be required to submit an Erosion Control Plan to the City Project Engineer, Department of Public Works, 200 E. Santa Clara Street, San José, California 95113. The Erosion Control Plan may include BMPs as specified in the Association of Bay Area Government's (ABAG's) Manual of Standards Erosion & Sediment Control Measures for reducing impacts on the City's storm drainage system from construction activities.

3.10.4 MITIGATION MEASURES

None Required.

3.11 LAND USE & PLANNING

3.11.1 SETTING

The four Proposed Project alignments (Alignments B, C, G, and H) would occur within existing pubic right of way or public easements. The land use designations as defined in the City's General Plan surrounding these easements are shown in **Figure 3-7** and described below:

- Alignment B – Lands surrounding Alignment B are designated as Heavy Industrial with the exception of Challenger School, located immediately north of Gish Road, which is designated as Public/Quasi-Public.
- Alignment C – Lands surrounding portions of Alignment C located north of McKay Drive and East of Automation Parkway are designated as Industrial Park. Lands adjacent to the portions of Alignment C located south of McKay Drive include Industrial Park, Public Park and Open Space, Medium to High Density Residential, General Commercial, Combined Industrial/Commercial, and Mixed Use. The Berryessa Planned Residential Community is located immediately south of Murphy Avenue.
- Alignment G – Lands surrounding Alignment G are designated as Medium Density Residential, Neighborhood/Community Commercial, Public/Quisi Public, and Public Park and Open Space.
- Alignment H – Lands surrounding Alignment H include Public Park and Open Space, Light Industrial, General Commercial, Office, Public/Quasi-Public, and Medium to High Density Residential. Areas designated as Public/ Quasi Public include Stonegate Elementary, RF Kennedy Elementary, Yerba Buena High School, J.W. Fair Intermediate School, and Success Academy.

3.11.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

LAND USE & PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Physically divide an established community?	☐	☐	☐	☒	1
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?	☐	☐	☐	☒	1, 2

LAND USE & PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒	1, 2

Questions A and B

Projects that have the potential to physically divide an established community include new freeways and highways, major arterials streets, and railroad lines. The four proposed alignments would occur within existing pubic right of way easements; therefore, they would not physically divide an established community. The Proposed Project would not alter any existing land uses and would be consistent with the existing zoning and General Plan. ***No impact*** would occur.

Question C

The Habitat Plan has not yet been adopted; however, the Proposed Project is consistent with the preliminary conservation objectives identified within the Habitat Plan, as discussed in **Section 3.5**, Biological Resources. ***No impact*** would occur.

Cumulative Impacts

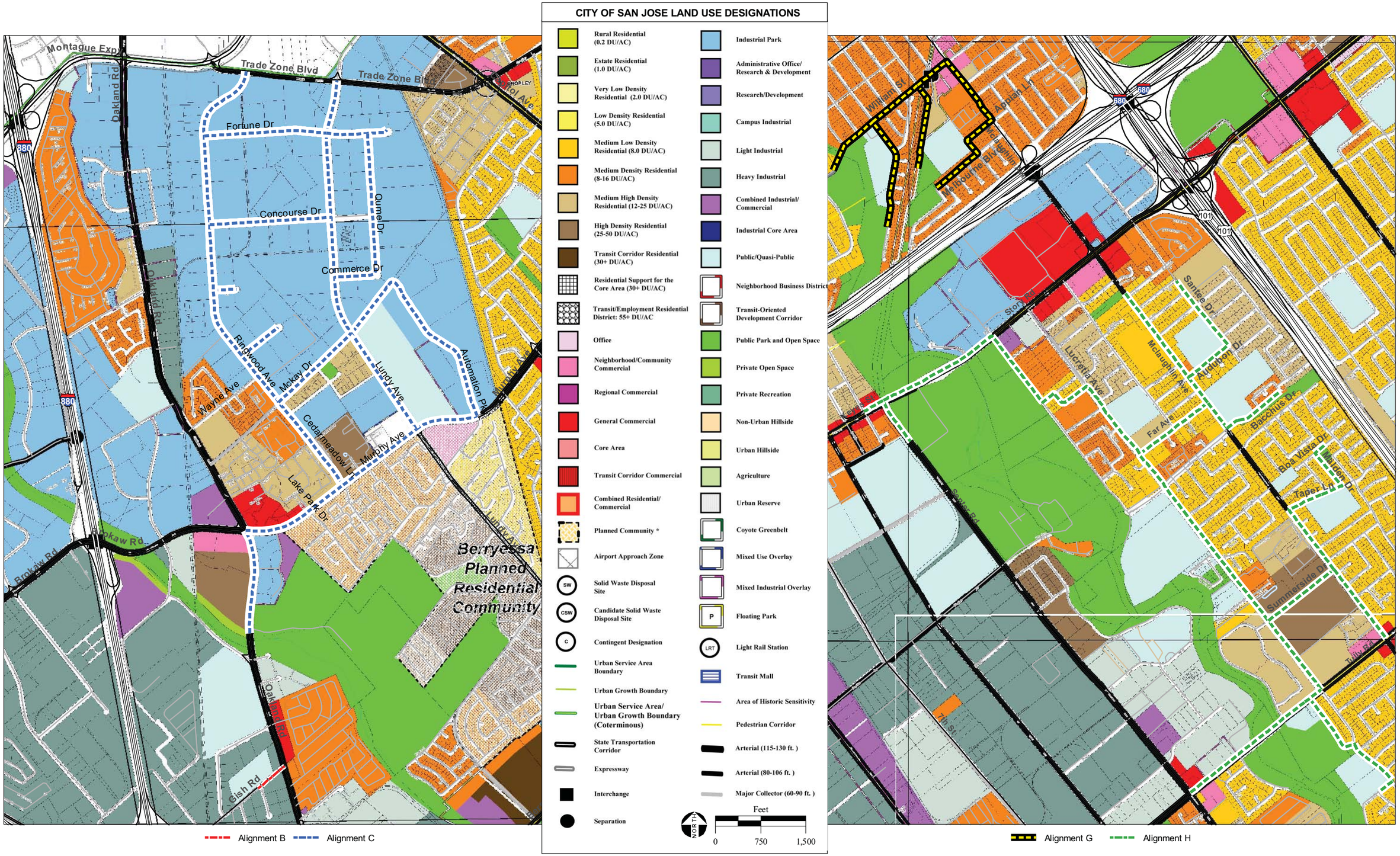
The proposed alignments are consistent with the existing zoning and General Plan; therefore no cumulative impacts would occur.

3.11.3 STANDARD MEASURES

None required.

3.11.4 MITIGATION MEASURES

None required.



SOURCE: City of San Jose General Plan, 2009; HydroScience Engineers, 2010; ESRI Server Data, 2010; AEX Aerial Photograph, 6/15/2006; AES, 2010

Figure 3-7
City of San Jose General Plan Land Use Designations

3.12 MINERAL RESOURCES

3.12.1 SETTING

Extractive resources known to exist in and near the Santa Clara Valley include cement, sand, gravel, crushed rock, clay, and limestone. Santa Clara County has also supplied a significant portion of the nation's mercury over the past century. Pursuant to the mandate of the Surface Mining and Reclamation Act of 1975 (SMARA), the State Mining and Geology Board has designated the Communications Hill Area (Sector EE), bounded generally by the Southern Pacific Railroad, Curtner Avenue, State Route 87, and Hillsdale Avenue, as containing mineral deposits which are of regional significance as a source of construction aggregate materials.

Neither the State Geologist nor the State Mining and Geology Board has classified any other areas in the City of San José as containing mineral deposits which are either of statewide significance or the significance of which requires further evaluation. None of the four proposed alignments are located within the Communications Hill area.

3.12.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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?	☐	☐	☐	☒	1, 18
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?	☐	☐	☐	☒	1, 18

Questions A and B

All four of the proposed alignments are outside of the Communications Hill area, and will therefore not result in a significant impact from the loss of availability of a known mineral resource. ***No impact*** would occur.

Cumulative Impacts

The proposed alignments are not located within areas containing known mineral resources; therefore, ***no cumulative impacts*** would occur.

3.12.3 STANDARD MEASURES

None Required.

3.12.4 MITIGATION MEASURES

None Required.

3.13 NOISE

3.13.1 SETTING

Noise Descriptors

The ambient noise level is defined as the existing range of noise levels from all sources near and far. A similar term is background noise level, which usually refers to the ambient noise level that is present when any intermittent noise sources are absent. Community Noise Equivalent Level (CNEL) or Day-Night Average Sound Level (DNL) contours are frequently utilized to graphically portray community noise exposure. The CNEL is calculated from hourly Noise Equivalence Level (Leq) values, after adding a "penalty" to the noise levels measured during the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods. The penalty for evening hours is a factor of 3, which is equivalent to 4.77 dB. The penalty for nighttime hours is a factor of 10, which is equivalent to 10 dB. To calculate the DNL, day-night average sound level (Ldn), the evening penalty is omitted. The Leq is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value.

Sensitive Receptors

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial and industrial land uses. A sensitive receptor is defined as any living entity or aggregate of entities whose comfort, health, or well being could be impaired or endangered by the existence of noise.

The land surrounding the project site is primarily residential with some commercial and industrial uses. Alignment B is located adjacent to the Challenge School on Gish Road. Alignments C, Phases I and II are adjacent to residential units along Ringwood Avenue from Wayne Avenue to Murphy Avenue. Alignment G is adjacent to residential units along all roads in the alignment and a portion of the alignment is also adjacent to McKinley Elementary School on Appian Way and Olinder Elementary School on S. 19th Street. Alignment H is adjacent to residential units along all roads in the alignment and a portion is also adjacent to Jeanne Meadows Elementary School on Taper Lane and J.W. Fair Intermediate School on McLaughlin Avenue.

City of San José General Plan

The San José 2020 General Plan (General Plan) states that the City's acceptable exterior noise level is 55 DNL long-term and 60 DNL short-term. The acceptable interior noise level is 45 DNL. The General Plan recognizes that the noise levels may not be achieved in the Downtown core area as defined in the General Plan, in the vicinity of major roadways, and near the Norman Y. Mineta San José International Airport as defined in the General Plan.

The following are applicable General Plan noise Goals and Policies:

Noise Goal:

Minimize the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies.

Noise Policies:

1. The City's acceptable noise level objectives are 55 DNL as the long-range exterior noise quality level, 60 DNL as the short-range exterior noise quality level, 45 DNL as the interior noise quality level, and 76 DNL as the maximum exterior noise level necessary to avoid significant adverse health effects. These objectives are established for the City, recognizing that the attainment of exterior noise quality levels in the environs of the San José International and Reid-Hillview airports, the Downtown Core Area, and along major roadways may not be achieved in the time frame of this Plan. To achieve the noise objectives, the City should require appropriate site and building design, building construction and noise attenuation techniques in new residential development.

9. Construction Operations should use available noise suppression devices and techniques.

12. Noise studies should be required for land use proposals where known or suspected peak event noise sources occur which may impact adjacent existing or planned land uses.

3.13.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

NOISE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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?	☐	☒	☐	☐	1, 2, 10
b) Exposure of persons to or generation of excessive groundborne vibration noise levels?	☐	☒	☐	☐	1, 2, 10
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒	1
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity	☐	☒	☐	☐	1, 2, 10

NOISE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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?	☐	☐	☐	☒	1, 2, 10
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?	☐	☐	☐	☒	1, 2, 10

Questions A, C, and D

Construction

Construction of the Proposed Project would result in a temporary increase in ambient noise levels. Noise impacts resulting from construction would depend on: 1) the noise generated by various pieces of construction equipment; 2) the timing and duration of noise generating activities; 3) the distance between construction noise sources and noise sensitive receptors; and 4) existing ambient noise levels. Trenching and repaving activities during the construction phase of the project would generate noise and would temporarily increase noise levels at nearby sensitive land uses. No pile driving would be required for construction of the Proposed Project.

Typical hourly average construction noise levels are 75 to 80 dBA measured at a distance of 100 feet from the site during busy construction periods. Such noise levels would be intermittently audible to residences within 1,000 feet of the construction site.

Construction activities may also result in annoyances to existing schools and commercial development adjacent to the proposed alignments. However, because of the duration of construction (approximately up to 6 months for each alignment), the project would not result in significant short-term construction related noise impacts. Further, implementation of standard measures listed in **Section 3.13.3** and mitigation measures recommended in **Sections 3.13.4** would avoid or further reduce noise impacts. The potential for impacts associated with construction noise is considered a ***less than significant with mitigation***.

Operation

During operation, recycled water pipelines would require periodic maintenance. It is assumed that operation and maintenance of the recycled water pipelines would require approximately 1 truck trip per day. It takes a doubling of traffic volume to audible increase the ambient noise level. No roadway in the project area has a traffic volume of 10 vehicles per week or less; therefore, the Proposed Project would not increase ambient traffic noise levels. Maintenance of the recycled water pipelines may require use of some construction equipment, such as jack hammer and pneumatic hand tools; however, these activities would be temporary and in accordance with standard measures listed in **Section 3.13.3** and mitigation measures recommended in **Sections 3.13.3**, the Proposed Project would not expose persons to noise levels above the local standards or cause substantial temporary or periodic increase in the noise level or permanently increase the ambient noise. Therefore, this impact is considered ***less than significant with mitigation***.

Question B

Groundbourne vibration noise is barely perceptible at 65 vibration dB (VdB) and is not usually significant unless the vibration exceeds 70 VdB. Construction of the Proposed Project would use heavy duty equipment and a jackhammer which is an impact device. Impact devices generally cause the greatest groundbourne vibration noise. A jackhammer, at 25 feet has a vibration level of approximately 79 VdB. Construction of the Proposed Project has the potential to create significant groundbourne vibration noise at near-by sensitive receptors. However, with the implementation of standard measures provided in **Section 3.13.3,** impacts associated with vibration noise would be reduced or avoided, resulting in a ***less than significant*** impact.

Questions E and F

None of the proposed alignments are located within two miles of a public or private airport. Alignment C the closest alignment to the Norman Y. Mineta San José International Airport. Alignment C is approximately 2.2 miles from the Norman Y. Mineta San José International Airport. Temporary noise resulting from construction and maintenance activities would not expose people residing or working in the project area to excessive noise levels. This impact is considered ***less than significant***.

Cumulative Impacts

As stated above, maintenance of the recycled water pipelines may require the use of some construction equipment; however, these activities would be temporary and in accordance with standard measures listed in Section 3.13.3. The Proposed Project would not expose sensitive receptors to noise levels above the local standards, cause substantial temporary or periodic increases in noise levels, nor permanently increase the ambient noise; therefore the project would not result in cumulatively considerable impacts. This impact is considered ***less than significant***.

3.13.3 STANDARD MEASURES

SJWC shall ensure through contractual obligations that the following construction practices shall be implemented during construction of the Proposed Project to reduce or prevent excessive noise from

leaving the project site:

- Construction shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday for any on-site or off-site work within 500 feet of any residential unit. Construction outside of these hours may be approved through a development permit based on a site-specific construction noise mitigation plan and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential uses.

- Construction contractors shall use power construction equipment with state-of-the-art noise shielding and muffling devices. All internal combustion engines used on the project site shall be equipped with adequate mufflers and shall be in good mechanical condition to minimize noise created by faulty or poor maintained engines or other components.

- Construction contractors shall locate stationary noise generating equipment as far as possible from sensitive receptors. Staging areas shall be located a minimum of 200 feet from noise sensitive receptors, such as residential uses.

3.13.4 MITIGATION MEASURES

N-1 SJWC shall implement a Construction Management Plan approved by the Director of Planning, Building and Code Enforcement to minimize impacts on the surrounding sensitive land uses to the fullest extent possible. The Construction Management Plan would include the following measures to minimize impacts of construction upon adjacent sensitive land uses:

- Early and frequent notification and communication with the neighborhood were construction activities are to occur.

- Prohibit unnecessary idling of internal combustion engines.

- Designate a “noise disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (e.g., beginning work too early, bad muffler, etc.) and institute reasonable measures warranted to correct the problem. A telephone number for the disturbance coordinator would be conspicuously posted at the construction site.

3.14 POPULATION

3.14.1 SETTING

The City of San José is located within Santa Clara County and had an estimated population of approximately 1,006,892 in 2009 (City of San José, 2008). The project alignments are located within areas of existing urban buildout within the City limits. The Proposed Project alignments are primarily within residential and commercial districts.

3.14.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

POPULATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure)?	☐	☐	☐	☒	1
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1

Question A

The Proposed Project entails the construction of a pipeline to provide recycled water to serve residential, municipal, and other users. The Proposed Project would not increase the capacity of the existing wastewater treatment plant, nor increase wastewater flows. All growth and development regulations within the project area are controlled through the City of San José General Plan and various municipal documents. Implementation of the Proposed Project would not result in a direct increase in population or housing. The Proposed Project is designed to serve growth controlled by the General Plan and local ordinances. No additional indirect impacts to population and housing would occur as a result of the Proposed Project beyond those identified in the General Plan. ***No impact*** would occur.

Questions B and C

Implementation of the Proposed Project would not displace existing housing or people. ***No impact*** would occur.

Cumulative Impacts

Cumulative growth in the region has been addressed in the General Plan in the project area. The Proposed Project is not expected to increase growth beyond that projected in those plans, therefore ***no cumulative impacts*** would occur.

3.14.3 STANDARD MEASURES

None required.

3.14.4 MITIGATION MEASURES

None required.

3.15 PUBLIC SERVICES

3.15.1 SETTING

Fire Protection/Emergency Medical Service

The City of San José Fire Department (SJFD) provides fire protection and emergency medical services to the four project alignments. The SJFD serves an area covering 205 square miles with an estimated population of 1,006,892 citizens (City of San José, 2010). The SJFD staffs 36 stations through the City of San José. Response statistics show that during 2007 the SJFD responded to a total of 52,380 citywide calls (SJFD, 2010).

Law Enforcement

The City of San José Police Department (SJPD) provides law enforcement and safety services to the three project alignments. The most recent statistics from SJPD report that approximately 1,343 sworn officers are employed by the SJPD (SJPD, 2010). Alignment B, C and G are located within the Central Division-Robert District and Central Division-King District, while Alignment H is located within the Western Division-Lincoln District. The Central Division Community Policing Center is located at 1060 Taylor Street, north of the proposed alignments. The Western Division Community Policing Center is located at 3707 Williams Road, west of the proposed alignments.

Schools

The San José Unified School District, East Side Union High School District, and the Franklin- McKinley School District provides public education in the project area. The San José Unified School District consists of 52 individual schools, with an enrollment of 31,918 in 2009 (CDOE, 2010). The Franklin-McKinley School District, during the same time period, consisted of 17 schools with an enrollment of 10,044 students.

Alignment B- Challenger School is located on the western terminus of the proposed alignment.

Alignment C- No schools are located along this alignment

Alignment G- Olinder Elementary School and McKinley Elementary School are located along the alignment, at the connection to the existing pipeline (Olinder) and the terminus (McKinley).

Alignment H- Stonegate Elementary, RF Kennedy Elementary, J. Wilbur Fair Junior High School, Leanne Meadows Elementary, Santee Elementary School, and Yerba Buena High School are located along portions of the proposed alignment.

3.15.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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 time or other performance objectives for any of the public services:					
a) Fire protection?	☐	☐	☒	☐	1, 15
b) Police Protection?	☐	☐	☒	☐	1, 15
c) Schools?	☐	☐	☐	☒	1
d) Parks?	☐	☐	☐	☒	1
e) Other public facilities?	☐	☐	☐	☒	1

Questions A – E

Operation

Operation and maintenance activities associated with the Proposed Project would not alter or restrict public service routes, create impacts to area schools and parks, or increase the potential demand for public services in the City of San José. The distribution system would be built within public right-of-ways along existing roadways. ***No impact*** to public services from operation of the Proposed Project would occur.

Construction

Potential impacts during pipeline installation could occur to SJFD and SJPD. Both City departments require that an adequate notice be given of any roadway work and closures. In the event of a closure, the SJPD requires that officers be on the scene of the construction work. City ordinances requires that the Traffic Enforcement unit of the police department be contacted no later than 48 hours before the closure of any intersections or roadways, and also be informed of the dates, times, and locations of each closure.

Appropriate road closure procedures during construction of the distribution system in the vicinity of schools would ensure appropriate detours are designated to avoid impacts to school service and area parks.

Standard measures are included to reduce any potential impacts to services due to temporary road closures during the construction phase of the Proposed Project. After mitigation, potential impacts associated with construction of the Proposed Project would be considered ***less than significant***.

Cumulative Impacts

The Proposed Project would not contribute to cumulative impacts to public services in the project area. Other roadway projects, constructed in concurrence with the Proposed Project, may occur during the period of project construction; however, the permitting and environmental regulatory process in the City of San José would mitigate all potential public service impacts. This impact is considered ***less than significant***.

3.15.3 STANDARD MEASURES

Implementation of the following measures will reduce potential construction impacts to public services to less than significant levels.

- The City of San José Police Department shall be provided notice regarding road closures and other activities during construction that could impede delivery of police services. The Police Department shall be contacted pertaining to accommodations for visibility and accessibility of emergency vehicles.
- The San José Fire Department shall be provided advance notice to plan for the temporary road closures. Road closures shall be regulated through Fire Department planning.

3.15.4 MITIGATION MEASURES

None required.

3.16 RECREATION

3.16.1 SETTING

A majority of the parks within the City of San José are under the management of the Department of Parks, Recreation and Neighborhood Services (Parks Department). Additionally, the Santa Clara County regional parks system includes portions of its trail system within the urban area, including trails and greenways through the City.

Two City parks are located along the proposed Alignment G, with proposed connection for the use of recycled water for irrigation.

3.16.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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?	☐	☐	☐	☒	1
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒	1

Questions A and B

The Proposed Project would not result in population growth that would increase the use of regional parks and other recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. ***No impact*** would occur.

3.16.3 STANDARD MEASURES

None required.

3.16.4 MITIGATION MEASURES

None required.

3.17 TRANSPORTATION

3.17.1 SETTING

Regulatory Context

The 2008 Traffic Impact Analysis Handbook (Handbook) identifies the relative regulatory framework necessary to analyze project-related transportation impacts within City of San José (City). The following outlines the relevant plans, policies, ordinances, and management plans relevant to the Proposed Project:

General Plan

The General Plan provides that the minimum overall performance of signalized intersections within the City should be correlated to a minimum Levels of Service of D for all intersections unless governed by an area development policy or a protected intersection designation. A development that would cause the performance of an intersection to fall below the minimum Levels of Service needs to provide vehicular related improvements aimed at maintaining the minimum Levels of Service (General Plan LOS Policy 5).

2008 County Wide Land Use Plan – Santa Clara County

The 2008 County Wide Land Use Plan (City of San José, 2008) provides a general overlay for the Norman Y. Mineta San José International Airport (Airport), which provides the airports sphere of influence. If a project is identified as within the sphere of influence then the project may have an impact on air traffic. None of the proposed alignments are within the sphere of the influence of the Airport.

Council Transportation Impact Policy 5-3

The Council Transportation Impact Policy 5-3 in the Handbook states that a project which generates a substantial amount of traffic shall prepare a traffic impact analysis. Under Policy 5-3 a significant amount of traffic is considered if a project increases traffic volumes by one percent.

Santa Clara Congestion Management Plan

The Santa Clara Congestion Management Plan (CMP) (Santa Clara County, 2004) was adopted May 7, 1998 and updated March 29, 2004. The CMP requires a minimum Level of Service E at any intersection in the County. The CMP requires that all local jurisdictions conform to the CMP and that all projects with the potential to generate 100 peak am or pm peak-hour trips must be analyzed.

Transportation Network Setting

The affected transportation environment consists of two major collector and 27 local streets. Alignment B would be constructed within Gish Road west of its intersection with Oakland Road. Gish Road mainly serves commercial and industrial land uses; however, the Challenger School is adjacent to the recycled water pipeline route on Gish Road. Alignment C, Phases I and II consists of local streets serving a mix of residential, commercial, and industrial uses. Alignment G and H consists of local streets serving residences and eight schools.

3.17.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

TRANSPORTATION/TRAFFIC	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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?	☐	☐	☒	☐	1, 2, 27
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐	1, 2, 27
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?	☐	☐	☐	☒	1, 2
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒	1, 2
e) Result in inadequate emergency access?	☐	☒	☐	☐	1, 2
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?	☐	☐	☐	☒	1, 2, 27

Questions A and B

The Proposed Project is not considered a trip generating project. The project would temporarily increase traffic during the construction period and for maintenance of the recycled water pipeline during operation.

Given the extent of construction and the relatively low need for maintenance to the recycled pipeline, it is estimated that the Proposed Project would increase traffic on the local road system during construction and operation by 20 trips per day and 10 trips per week, respectively. Given the small number of trips that the Proposed Project would add to the local roadway system the project would not conflict with the City of San José's General Plan, the 2005 Council Transportation Impact Policy 5-3, or the Santa Clara Valley Transportation Authority Congestion Management Program (CMP); therefore, a ***less-than-significant*** impact would occur.

Questions C

The Airport is approximately two miles west of Alignment B, which is the closest alignment to the Airport. The Proposed Project would not alter air traffic patterns, or increase traffic levels or a change in location that results in substantial safety risks; therefore, ***no impact*** would occur.

Questions D

The Proposed Project would not change the design or uses of existing roads; therefore, ***no impact*** would occur.

Questions E

Construction would occur over a period of up to six months per alignment, at various locations along each recycled water pipeline route. During the construction period temporary lane closures on the roads discussed in **Section 3.17.1** could occur. These construction activities have the potential to impede emergency vehicles. Implementation of the standard measure and mitigation measures identified in **Sections 3.17.3** and **3.17.4**; respectively, would require that all construction activities are coordinated with affected public agencies and local emergency service providers. Therefore, construction related traffic impacts are considered ***less than significant with mitigation.***

Operation and maintenance of the Proposed Project would increase traffic on major collectors and local streets by approximately one vehicle per day, which would not impede emergency vehicles operation; therefore, a ***less than significant*** impact would occur during operation of the Proposed Project.

Questions F

The Proposed Project is a recycled water project and would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, ***no impact*** would occur.

Cumulative Impacts

Traffic impacts from the Proposed Project would be limited to short-term construction effects along the proposed pipeline alignments. Concurrent construction activities along these roadway networks could result in cumulatively significant impacts with respect to traffic flow and emergency and public vehicle traffic. Recommended mitigation measures outlined in **Section 3.17.4** would reduce direct impacts of the Proposed Project to the existing roadway networks and require coordination with emergency service

providers. Therefore, the Proposed Project's cumulative contribution to short-term traffic-related impacts during construction would be less than significant with mitigation.

3.17.3 STANDARD MEASURES

None required.

3.17.4 MITIGATION MEASURES

TR-1 SJWC shall provide the City with a Traffic Control Plan upon submittal of construction drawings. At a minimum, the plan shall identify all construction access and parking areas, temporary pavement markings, and temporary construction signage requirements (e.g., speed limit, temporary loading zones).

TR-2 SJWC shall ensure that all construction activities are coordinated with local emergency service providers at least two weeks in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times.

TR-3 SJWC shall ensure, through contractual obligation that all open trenches at the end of each workday are covered with metal plates to accommodate traffic and access.

3.18 UTILITIES AND SERVICE SYSTEMS

3.18.1 SETTING

The Proposed Project is a component of the SBWR system and during operation would not require any public water, solid waste, or wastewater services. During construction, some water, wastewater, and solid waste utilities and services would be necessary; however, these services would be diminutive and short-term.

Water Suppliers and Supply

Water within the project area is supplied through SJWC. SJWC relies on four sources of water: imported surface water treated by the Santa Clara Valley Water District (SCVWD), groundwater, surface water, and recycled water from the SBWR system.

Solid Waste Collection and Disposal

Solid waste collection is currently provided by the City through contract with Garden City Sanitation, California Waste Solutions, Green Team of San José and Greenwaste Recovery. Service is provide through City fees to residential, commercial, and industrial uses surrounding the project alignments. The Zanker Road Transfer Station provides waste disposal services to the community as well as recycling facilities. The active landfills in the vicinity of the project site are the BFI Newby Island Sanitary Landfill, Guadalupe Landfill, Kirby Canyon Landfill, and the Zanker Road Landfill.

Power and Natural Gas

Electricity and natural gas are supplied to the project site and surrounding area by the Pacific Gas and Electric Company (PG&E) via underground distribution pipelines and transmission lines.

Communications

Pacific Bell provides telephone communication services to the project area.

3.18.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

UTILITIES & SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒	1
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?	☐	☐	☒	☐	1
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?	☐	☐	☒	☐	1
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒	1
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒	1
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	1
g) Comply with federal, state, and local statutes and regulations related to solid waste.	☐	☐	☒	☐	1, 28

Questions A and E

Only a portion of the City of San José currently has a centralized recycled water distribution system. **No impact** would occur associated with the existing capacity of local wastewater treatment.

Question B

The Proposed Project consists of the construction of a new recycled water distribution system. As the project alignments will tie into existing pipelines, no impacts to existing services are anticipated during the construction phase of the project. A ***less than significant*** impact would occur.

Question C

Stormwater runoff from construction and operation are discussed above under **Section 3.10**, Hydrology and Water Quality. The Proposed Project would not require construction of new stormwater facilities or expansion of existing facilities. A ***less than significant*** impact would occur.

Question D

The Proposed Project would not impact water supply facilities. ***No impact*** would occur.

Questions F and G

The impact to local landfills would be minimal as the Proposed Project would generate only a minor amount of waste during construction. This waste would be sorted at a local transfer station and disposed of at an appropriate landfill. The local landfills currently provide significant capacity for transfer and meeting all appropriate standards regarding solid waste. A **less than significant** impact would occur.

Cumulative Impacts

The Proposed Project would not contribute to cumulative impacts to utilities in the project area. The project would potentially reduce current potable water demands, as the recycled water distribution system would contribute to the conservation of water resources.

3.18.3 STANDARD MEASURES

None required.

3.18.4 MITIGATION MEASURES

None required.

3.19 MANDATORY FINDING OF SIGNIFICANCE

3.19.1 SETTING

Setting for each resource area has been described within the "Setting" section of each resource area.

3.19.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact	Information Sources
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 plan or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	1-28
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 probably future projects)?	☐	☒	☐	☐	1-28
c) Does the project have environment effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	1-28

Question A – Environmental Effects

As discussed in the previous sections, the Proposed Project could potentially have significant environmental effects with respect to Air Quality, Biological Resources, Cultural Resources, Green House Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, and Transportation. With the above noted mitigation, however, the impacts of the Proposed Project would be reduced to a less than significant level.

Questions B and C – Cumulative and Indirect Effects

Cumulative impacts and indirect effects for each resource area have been considered within the analysis of each resource area. When appropriate, mitigation measures have been provided to reduce all potential impacts to a less than significant level.

3.19.3 STANDARD MEASURES

None Required

3.19.4 MITIGATION MEASURES

See **Mitigation Measures AQ-1**, **BR-1** through **4**, **CR-1** through **2**, **GHG-1**, **HZM-1** through **5**, **HWQ-1**, **N-1**, **PUB-1** through **2**, and **TR-1** through **3**.

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3. California Department of Conservation, Important Farmlands of Santa Clara County map, July 2009 (CDC, 2009)
4. State of California's Geo-Hazard maps / Alquist Priolo Fault maps, 2009 (USGS, 2008; CGS, 2009)
5. San José Historic Resources Inventory
6. City of San José Archeological Sensitivity Maps
7. FEMA Flood Insurance Rate Map, Santa Clara County, 1996 (FEMA, 1996)
8. California Department of Fish & Game, California Natural Diversity Database, 2010 (CDFG, 2003)
9. City of San José Heritage Tree Survey Report (City of San José, 2006)
10. City of San José Noise Exposure Map for the 2020 General Plan (City of San José, 2008)
11. Draft BAAQMD CEQA Guidelines, Bay Area Air Quality Management District, 2009. (BAAQMD, 2009)
12. San Francisco Bay Regional Water Quality Control Board 2007 Basin Plan (SFBRWQCB, 2007)
13. Final Environmental Impact Report, City of San José, 2020 General Plan
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16. San José Environmental Services Department (SJESD, 2010)
17. San José Water Company, Recycled Water Master plan, March 2009 (HSE, 2009)
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29. Records search at Northwest Information Center (NWIC) of the California Historical Resources Information System by NWIC staff, on February 26, 2010 (NWIC file 09-1026) (NWIC, 2010)

30. EPA, 2010. Letter from Shiann-Jang Chern, Remedial Project Manager, USEPA, Region 9, Superfund Division, date June 4, 2010.

SECTION 4.0

SIGNIFICANCE DETERMINATION

4.0 SIGNIFICANCE DETERMINATION

On the basis of the environmental evaluation presented in **Section 3.0**:

☐ 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 to the project design and project-specific mitigation measures described in **Section 3.0** have been agreed to by the project proponent. A NEGATIVE DECLARATION is recommended to be adopted.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

John Davidson
Signature

4/23/2010
Date

John Davidson
Printed Name

City of San José
Lead Agency

SECTION 5.0

LIST OF PREPARERS

5.0 LIST OF PREPARERS

CITY OF SAN JOSÉ – LEAD AGENCY

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Darryl Boyd, AICP, Principal Planner

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Deputy Project Manager:	Bibiana Alvarez – Geology, Land Use, Agricultural Resources
Technical Staff:	David Sawyer – Aesthetics, Population, Public Services, Recreation, and Utilities and Service Systems
	Trent Wilson – Water Quality, Air Quality, Noise
	Erin Quinn – Air Quality, Traffic, Noise
	Anna Elzeftawy – Water Quality
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HYDROSCIENCE ENGINEERS – PROJECT ENGINEERS

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SECTION 6.0

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6.0 REFERENCES

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APPENDICES

APPENDIX A

BIOLOGICAL RESOURCES DOCUMENTS

FEDERAL ENDANGERED AND THREATENED SPECIES LISTING

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 100224010033

Database Last Updated: December 1, 2009

Quad Lists

Listed Species

Invertebrates

Branchinecta conservatio

Conservancy fairy shrimp (E)

Euphydryas editha bayensis

bay checkerspot butterfly (T)

Critical habitat, bay checkerspot butterfly (X)

Lepidurus packardi

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

Fish

Hypomesus transpacificus

delta smelt (T)

Oncorhynchus mykiss

Central California Coastal steelhead (T) (NMFS)

Central Valley steelhead (T) (NMFS)

Critical habitat, Central California coastal steelhead (X) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Rana aurora draytonii

California red-legged frog (T)

Critical habitat, California red-legged frog (X)

Reptiles

Masticophis lateralis euryxanthus

Alameda whipsnake [=striped racer] (T)

Birds

Charadrius alexandrinus nivosus

western snowy plover (T)

Pelecanus occidentalis californicus

California brown pelican (E)

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Dudleya setchellii
Santa Clara Valley dudleya (E)

Lasthenia conjugens
Contra Costa goldfields (E)
Critical habitat, Contra Costa goldfields (X)

Streptanthus albidus ssp. albidus
Metcalf Canyon jewelflower (E)

Suaeda californica
California sea blite (E)

Proposed Species

Amphibians

Rana aurora draytonii
Critical habitat, California red-legged frog (PX)

Quads Containing Listed, Proposed or Candidate Species:

MILPITAS (427B)
SAN JOSE WEST (427C)
SAN JOSE EAST (427D)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The

Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be May 25, 2010.

CALIFORNIA NATURAL DIVERSITY DATABASE LISTING

California Department of Fish and Game
Natural Diversity Database
CNDDB Records on the Milpitas, San Jose East, and San Jose West Quads

	Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
1	***Accipiter cooperii***	Cooper's hawk	ABNKC12040			G5	S3		
2	***Actinemys marmorata***	western pond turtle	ARAAD02030			G3G4	S3		SC
3	***Adela oplerella***	Opler's longhorn moth	IILEE0G040			G2G3	S2S3		
4	***Agelaius tricolor***	tricolored blackbird	ABPBXB0020			G2G3	S2		SC
5	***Ambystoma californiense***	California tiger salamander	AAAAA01180	Threatened	unknown code...	G2G3	S2S3		SC
6	***Antrozous pallidus***	pallid bat	AMACC10010			G5	S3		SC
7	***Ardea herodias***	great blue heron	ABNGA04010			G5	S4		
8	***Astragalus tener var. tener***	alkali milk-vetch	PDFAB0F8R1			G1T1	S1.1	1B.2	
9	***Athene cunicularia***	burrowing owl	ABNSB10010			G4	S2		SC
10	***Atriplex depressa***	brittlescale	PDCHE042L0			G2Q	S2.2	1B.2	
11	***Atriplex joaquiniana***	San Joaquin spearscale	PDCHE041F3			G2	S2	1B.2	
12	***Balsamorhiza macrolepis var. macrolepis***	big-scale balsamroot	PDAST11061			G3G4T2	S2.2	1B.2	
13	***California macrophylla***	round-leaved filaree	PDGER01070			G3	S3.1	1B.1	
14	***Centromadia parryi ssp. congdonii***	Congdon's tarplant	PDAST4R0P1			G4T3	S3.2	1B.2	
15	***Charadrius alexandrinus nivosus***	western snowy plover	ABNNB03031	Threatened		G4T3	S2		SC
16	***Chorizanthe robusta var. robusta***	robust spineflower	PDPGN040Q2	Endangered		G2T1	S1.1	1B.1	
17	***Cirsium fontinale var. campylon***	Mt. Hamilton fountain thistle	PDAST2E163			G2T2	S2.2	1B.2	
18	***Clarkia concinna ssp. automixa***	Santa Clara red ribbons	PDONA050A1			G5?T3	S3.3	4.3	
19	***Collinsia multicolor***	San Francisco collinsia	PDSCR0H0B0			G2	S2.2	1B.2	
20	***Cordylanthus maritimus ssp. palustris***	Point Reyes bird's-beak	PDSCR0J0C3			G4?T2	S2.2	1B.2	
21	***Dudleya setchellii***	Santa Clara Valley dudleya	PDCRA040Z0	Endangered		G1	S1.1	1B.1	
22	***Elanus leucurus***	white-tailed kite	ABNKC06010			G5	S3		
23	***Eryngium aristulatum var. hooveri***	Hoover's button-celery	PDAPI0Z043			G5T2	S2.1	1B.1	
24	***Euphydryas editha bayensis***	Bay checkerspot butterfly	IILEPK4055	Threatened		G5T1	S1		
25	***Falco peregrinus anatum***	American peregrine falcon	ABNKD06071	Delisted	unknown code...	G4T3	S2		
26	***Fritillaria liliacea***	fragrant fritillary	PMLIL0V0C0			G2	S2.2	1B.2	
27	***Geothlypis trichas sinuosa***	saltmarsh common yellowthroat	ABPBX1201A			G5T2	S2		SC
28	***Laslurus cinereus***	hoary bat	AMACC05030			G5	S4?		
29	***Lasthenia conjugens***	Contra Costa goldfields	PDAST5L040	Endangered		G1	S1.1	1B.1	
30	***Lepidurus packardi***	vernal pool tadpole shrimp	ICBRA10010	Endangered		G3	S2S3		
31	***Malacothamnus arcuatus***	arcuate bush-mallow	PDMAL0Q0E0			G2Q	S2.2	1B.2	
32	***Malacothamnus hallii***	Hall's bush-mallow	PDMAL0Q0F0			G1Q	S1.2	1B.2	

	Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
33	***Melospiza melodia pusillula***	Alameda song sparrow	ABPBXA301S			G5T2?	S2?		SC
34	***Microcina homi***	Hom's micro-blind harvestman	ILARA47020			G1	S1		
35	***Navarretia prostrata***	prostrate vernal pool navarretia	PDPLM0C0Q0			G2?	S2.1?	1B.1	
36	***Northern Coastal Salt Marsh***	Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2		
37	***Plagiobothrys glaber***	hairless popcorn-flower	PDBOR0V0B0			GH	SH	1A	
38	***Rallus longirostris obsoletus***	California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1		
39	***Rana draytonii***	California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3		SC
40	***Reithrodontomys raviventris***	salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2		
41	***Sorex vagrans halicoetes***	salt-marsh wandering shrew	AMABA01071			G5T1	S1		SC
42	***Streptanthus albidus ssp. albidus***	Metcalf Canyon jewel-flower	PDBRA2G011	Endangered		G2T1	S1.1	1B.1	
43	***Suaeda californica***	California seablite	PDCHE0P020	Endangered		G1	S1.1	1B.1	
44	***Tropidocarpum capparideum***	caper-fruited tropidocarpum	PDBRA2R010			G1	S1.1	1B.1	
45	***Tryonia imitator***	mimic tryonia (=California brackishwater snail)	IMGASJ7040			G2G3	S2S3		

CALIFORNIA NATIVE PLANT SOCIETY INVENTORY

CNPS Inventory of Rare and Endangered Plants

Status: Plant Press Manager window with 36 items - Wed, Feb. 24, 2010 15:41 c

Reformat list as: Standard List - with Plant Press controls

ECOLOGICAL REPORT

scientific	family	life form	blooming	communities	elevation	CNPS
Arctostaphylos andersonii	Ericaceae	perennial evergreen shrub	Nov-Apr	•Broadleafed upland forest (BUFrs) •Chaparral (Chprl) •North Coast coniferous forest (NCFrs)/openings, edges	60 - 730 meters	List 1B.2
Arctostaphylos silvicola	Ericaceae	perennial evergreen shrub	Feb-Mar	•Closed-cone coniferous forest (CCFrs) •Chaparral (Chprl) •Lower montane coniferous forest (LCFrs)/inland marine sands	120 - 600 meters	List 1B.2
Astragalus tener var. tener	Fabaceae	annual herb	Mar-Jun	•Playas (Plyas) •Valley and foothill grassland (VFGrs) (adobe clay) •Vernal pools (VnPls)/alkaline	1 - 60 meters	List 1B.2
Atriplex depressa	Chenopodiaceae	annual herb	Apr-Oct	•Chenopod scrub (ChScr) •Meadows and seeps (Medws) •Playas (Plyas) •Valley and foothill grassland (VFGrs) •Vernal pools (VnPls)/alkaline, clay	1 - 320 meters	List 1B.2
Atriplex joaquiniana	Chenopodiaceae	annual herb	Apr-Oct	•Chenopod scrub (ChScr) •Meadows and seeps (Medws) •Playas (Plyas) •Valley and foothill grassland (VFGrs)/alkaline	1 - 835 meters	List 1B.2
Balsamorhiza macrolepis var. macrolepis	Asteraceae	perennial herb	Mar-Jun	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/sometimes serpentinite	90 - 1555 meters	List 1B.2
California macrophylla	Geraniaceae	annual herb	Mar-May	•Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/clay	15 - 1200 meters	List 1B.1
Campanula exigua	Campanulaceae	annual herb	May-Jun	•Chaparral (Chprl) (rocky, usually serpentinite)	275 - 1250 meters	List 1B.2
Centromadia parryi ssp.	Asteraceae	annual herb	May-Oct (Nov) Months in parentheses	•Valley and foothill grassland (VFGrs)	1 - 230 meters	List 1B.2

congdonii			are uncommon.	(alkaline)		
Chorizanthe pungens var. hartwegiana	Polygonaceae	annual herb	Apr-Jul	•Lower montane coniferous forest (LCFrs)(maritime ponderosa pine sandhills)	90 - 610 meters	List 1B.1
Chorizanthe robusta var. robusta	Polygonaceae	annual herb	Apr-Sep	•Chaparral (Chprl) (maritime) •Cismontane woodland (CmWld) (openings) •Coastal dunes (CoDns) •Coastal scrub (CoScr)/sandy or gravelly	3 - 300 meters	List 1B.1
Cirsium fontinale var. campylon	Asteraceae	perennial herb	(Feb) Apr-Oct Months in parenlheses are uncommon.	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/serpentinite seeps	100 - 890 meters	List 1B.2
Collinsia multicolor	Scrophulariaceae	annual herb	Mar-May	•Closed-cone coniferous forest (CCFrs) •Coastal scrub (CoScr)/sometimes serpentinite	30 - 250 meters	List 1B.2
Cordylanthus maritimus ssp. palustris	Scrophulariaceae	annual herb hemiparasitic	Jun-Oct	•Marshes and swamps (MshSw) (coastal salt)	0 - 10 meters	List 1B.2
Dirca occidentalis	Thymelaeaceae	perennial deciduous shrub	Jan-Mar (Apr) Months in parentheses are uncommon.	•Broadleafed upland forest (BUFrs) •Closed-cone coniferous forest (CCFrs) •Chaparral (Chprl) •Cismontane woodland (CmWld) •North Coast coniferous forest (NCFrs) •Riparian forest (RpFrs) •Riparian woodland (RpWld)/mesic	50 - 395 meters	List 1B.2
Dudleya setchellii	Crassulaceae	perennial herb	Apr-Oct	•Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/serpentinite, rocky	60 - 455 meters	List 1B.1
Eryngium aristulatum var. hooveri	Apiaceae	annual/perennial herb	Jul	•Vernal pools (VnPls)	3 - 45 meters	List 1B.1
Fritillaria liliacea	Liliaceae	perennial bulbiferous herb	Feb-Apr	•Cismontane woodland (CmWld) •Coastal prairie (CoPrr) •Coastal scrub (CoScr) •Valley and foothill grassland (VFGrs)/often serpentinite	3 - 410 meters	List 1B.2

Hoita strobilina	Fabaceae	perennial herb	May-Jul (Aug-Oct) Months in parentheses are uncommon.	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Riparian woodland (RpWld)/usually serpentinite, mesic	30 - 860 meters	List 1B.1
Lasthenia conjugens	Asteraceae	annual herb	Mar-Jun	•Cismontane woodland (CmWld) •Playas (Plyas) (alkaline) •Valley and foothill grassland (VFGrs) •Vernal pools (VnPls)/mesic	0 - 470 meters	List 1B.1
Lessingia hololeuca	Asteraceae	annual herb	Jun-Oct	•Broadleafed upland forest (BUFrs) •Coastal scrub (CoScr) •Lower montane coniferous forest (LCFrs) •Valley and foothill grassland (VFGrs)/clay, serpentinite	15 - 305 meters	List 3
Lessingia micradenia var. glabrata	Asteraceae	annual herb	Jul-Nov	•Chaparral (Chprl) •Cismontane woodland (CmWld)/serpentinite, often roadsides	120 - 420 meters	List 1B.2
Malacothamnus arcuatus	Malvaceae	perennial evergreen shrub	Apr-Sep	•Chaparral (Chprl) •Cismontane woodland (CmWld)	15 - 355 meters	List 1B.2
Malacothamnus hallii	Malvaceae	perennial evergreen shrub	May-Sep (Oct) Months in parentheses are uncommon.	•Chaparral (Chprl) •Coastal scrub (CoScr)	10 - 760 meters	List 1B.2
Micropus amphibolus	Asteraceae	annual herb	Mar-May	•Broadleafed upland forest (BUFrs) •Chaparral (Chprl) •Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/rocky	45 - 825 meters	List 3.2
Monardella villosa ssp. globosa	Lamiaceae	perennial rhizomatous herb	Jun-Jul (Aug) Months in parentheses are uncommon.	•Broadleafed upland forest (BUFrs) (openings) •Chaparral (Chprl) (openings) •Cismontane woodland (CmWld) •Coastal scrub (CoScr) •Valley and foothill grassland (VFGrs)	100 - 915 meters	List 1B.2
Navarretia prostrata	Polemoniaceae	annual herb	Apr-Jul	•Coastal scrub (CoScr) •Meadows and seeps (Medws) •Valley and foothill grassland (VFGrs) (alkaline) •Vernal pools (VnPls)/mesic	15 - 700 meters	List 1B.1
				•Cismontane		

Pentachaeta bellidiflora	Asteraceae	annual herb	Mar-May	woodland (CmWld) •Valley and foothill grassland (VFGrs) (often serpentinite)	35 - 620 meters	List 1B.1
Piperia candida	Orchidaceae	perennial herb	May-Sep	•Broadleafed upland forest (BUFrs) •Lower montane coniferous forest (LCFrs) •North Coast coniferous forest (NCFrs)/sometimes serpentinite	30 - 1310 meters	List 1B.2
Plagiobothrys glaber	Boraginaceae	annual herb	Mar-May	•Meadows and seeps (Medws)(alkaline) •Marshes and swamps (MshSw) (coastal salt)	15 - 180 meters	List 1A
Potamogeton filiformis	Potamogetonaceae	perennial rhizomatous herb aquatic	May-Jul	•Marshes and swamps (MshSw) (assorted shallow freshwater)	300 - 2150 meters	List 2.2
Senecio aphanactis	Asteraceae	annual herb	Jan-Apr	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Coastal scrub (CoScr)/sometimes alkaline	15 - 800 meters	List 2.2
Streptanthus albidus ssp. albidus	Brassicaceae	annual herb	Apr-Jul	•Valley and foothill grassland (VFGrs) (serpentinite)	45 - 800 meters	List 1B.1
Streptanthus albidus ssp. peramoenus	Brassicaceae	annual herb	(Mar) Apr-Sep (Oct) Months in parentheses are uncommon.	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/serpentinite	94 - 1000 meters	List 1B.2
Suaeda californica	Chenopodiaceae	perennial evergreen shrub	Jul-Oct	•Marshes and swamps (MshSw) (coastal salt)	0 - 15 meters	List 1B.1
Tropidocarpum capparideum	Brassicaceae	annual herb	Mar-Apr	•Valley and foothill grassland (VFGrs) (alkaline hills)	1 - 455 meters	List 1B.1

List of Observed Wildlife and Plant Species

WILDLIFE SPECIES OBSERVED

SJWC Phase I Recycled Water Project

February 23, 2010

Scientific Name	Common Name
Anas platyrhynchos	Mallard duck
Branta canadensis	Canada goose
Cairina moschata	Muscovy duck
Corvus brachyrhynchos	American crow
Cyanocitta stelleri	Stellar's jay
Turdus migratorius	American robin

PLANT SPECIES OBSERVED

SJWC Phase I Recycled Water Project

February 23, 2010

(*) Asterisk indicates a non-native sp. (#) Number indicates a cultivated sp.

Scientific Name	Common Name
ALISMATACEAE	**WATER PLANTAIN FAMILY**
Alisma Plantago-aquatica	Water plantain
ANACARDIACEAE	**SUMAC FAMILY**
Toxicodendron diversilobum	Poison oak
APIACEAE	**CARROT FAMILY**
Daucus carota	Queen Anne's lace
ARALIACEAE	**ARALIA FAMILY**
*Hedera helix**	English ivy
ASTERACEAE	**SUNFLOWER FAMILY**
Baccharis pilularis	Coyote bush
Hypochaeris radicata	Rough cat's ear
*Lactuca serriola**	Prickly lettuce
*Picris echioides**	Bristly oxtongue
*Senecio vulgaris**	Common groundsel
*Silybum marinum**	Milk thistle
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica rapa**	Field mustard
CARYOPHYLLACEAE	**PINK FAMILY**
*Stellaria media**	Common chickweed
CUCUBERACEAE	**CUCUMBER FAMILY**
Marah californica	California manroot
CUPRESSACEAE	**CYPRESS FAMILY**
Sequoia sempervirens#	Coast redwood
FABACEAE	**LEGUME FAMILY**
Acacia sp.	Wattle
*Medicago polymorpha**	Bur clover
*Melilotus indicus**	Sweetclover
FAGACEAE	**OAK FAMILY**
Quercus agrifolia	coast live oak
Quercus lobata	Valley oak
Quercus wislizenii	Interior live oak
GERANIACEAE	**GERANIUM FAMILY**
Erodium botrys	Filaree

PLANT SPECIES OBSERVED

SJWC Phase I Recycled Water Project

February 23, 2010

(*) Asterisk indicates a non-native sp. (#) Number indicates a cultivated sp.

Geranium sp.	Geranium
HIPPOCASTANACEAE	**BUCKEYE FAMILY**
Aesculus californica	California buckeye
MALVACEAE	**MALLOW FAMILY**
*Malva neglecta**	Common mallow
*Malva parviflora**	Cheeseweed
MYRTACEAE	**MYRTLE FAMILY**
*Eucalyptus globulus**	Eucalyptus
OLEACEAE	**OLIVE FAMILY**
*Ligustrum sinense**	Chinese privet
OXALIDACEAE	**OXALIS FAMILY**
*Oxalis corniculata**	Creeping wood sorrel
*Oxalis pes-caprae**	Bermuda-buttercup
PINACEAE	**PINE FAMILY**
Cedrus deodara#	Deodar ceder
Pinus ponderosa#	Ponderosa Pine
PLANTAGINACEAE	**PLANTAIN FAMILY**
*Plantago lanceolata**	English plantain
Platanus racemosa	Western sycamore
POACEAE	**GRASS FAMILY**
Arundo Donax	Giant Reed
*Avena fatua**	Slender wild oat
*Bromus catharticus**	Rescue brome
*Bromus diandrus**	Ripgut brome
Bromus madritensis ssp. *rubens**	Red brome
*Cynodon dactylon**	Bermuda grass
Hordeum brachyantherum	Meadow barley
POLYGONACEAE	**BUCKWHEAT FAMILY**
*Polygonum arenastrum**	Prostrate knotweed
*Rumex acetosella**	Sheep sorrel
*Rumex crispus**	Curly dock
ROSACEAE	**ROSE FAMILY**
Potentilla anserine	Silverweed
Prunus cerasifera	Wild plum
RUBIACEAE	**MADDER FAMILY**
*Galium aparine**	Common bedstraw

PLANT SPECIES OBSERVED

SJWC Phase I Recycled Water Project

February 23, 2010

(*) Asterisk indicates a non-native sp. (#) Number indicates a cultivated sp.

SALICACEAE	**WILLOW FAMILY**
Populus fremontii	Femont's cottonwood
Salix sp.	Willow
SAPINDACEAE	**MAPLE FAMILY**
Acer macrophyllum	Big leaf maple
Acer negundo	Box elder
SIMAROUBACEAE	**QUASSIA FAMILY**
*Ailanthus altissima**	Tree of Heaven
ULMACEAE	**ELM FAMILY**
*Ulmus parvifolia**	Chinese elm

REGIONALLY OCCURRING SPECIAL STATUS SPECIES TABLE

APPENDIX A

REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common name	Federal/ State/ CNPS	Distribution	Habitat Requirements	Period of Identification	Potential to Occur in the Project Site
PLANTS					
Arctostaphylos andersonii Santa Cruz manzanita	--/--/1B.2	Known to occur in Santa Clara, Santa Cruz, and San Mateo Counties. Often confused with other species that have merged with it as varieties CNPS, 2010)	Found in openings and edges in broad-leafed upland forest, chaparral, and north coast coniferous forest at elevations from 60 to 730 meters (CNPS, 2010).	November-April	No. The project site does not provide habitat for this species.
Arctostaphylos silvicola Bonny Doon manzanita	--/--/1B.2	Known to occur in Santa Cruz County (CNPS, 2010)	Found in closed-cone coniferous forest, chaparral, lower montane coniferous forest and inland marine sands from 120 to 600 meters (CNPS, 2010)	February March	No. The project site does not provide habitat for this species.
Astragalus tener var. tener alkali milk-vetch	--/--/1B.2	Known to occur in Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, Solano, Sonoma, Stanislaus, and Yolo counties (CNPS, 2010).	Found in alkali playas, valley and foothill grassland in adobe clay, and vernal pools from 1 to 60 meters (CNPS, 2010).	March-June	No. The project site does not provide habitat for this species.
Atriplex depressa Brittlescale	--/--/1B.2	Known to occur in Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Merced, Solano, Stanislaus, Tulare, and Yolo counties (CNPS, 2010).	Found in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools/alkaline and clay soils from 1 to 320 meters (CNPS, 2010).	April-October	No. The project site does not provide habitat for this species.
Atriplex joaquiniana San Joaquin spearscale	--/--/1B.2	Known to occur in Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Santa Clara (though may be extirpated), San Joaquin (though may be extirpated), San Luis Obispo (uncertain), Solano, Tulare (uncertain), and Yolo counties (CNPS, 2010).	Found in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland/alkaline from 1 to 835 meters (CNPS, 2010).	April-October	No. The project site does not provide habitat for this species.
Balsamorhiza macrolepis var. *macrolepis* big-scale balsamroot	--/--/1B.2	Known to occur in Alameda, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Solano, Sonoma, and Tehama counties (CNPS, 2010).	Found in chaparral, cismontane woodland, and open grassy slopes and valleys, sometimes in serpentine soil from 90 to 1,400 meters (CNPS, 2010).	March-June	No. The project site does not provide habitat for this species.

Scientific Name Common name	Federal/ State/ CNPS	Distribution	Habitat Requirements	Period of Identification	Potential to Occur in the Project Site
California macrophylla round-leaved filaree	--/--/1B.1	Known to occur in Alameda, Butte (though may be extirpated/ uncertain), Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Lake, Lassen, Los Angeles, Merced, Monterey, Napa, Riverside, Santa Barbara, San Benito, Santa Clara, Santa Cruz Island (though may be extirpated), San Diego, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Ventura, and Yolo counties. Also occurs in Baja California and Oregon (CNPS, 2010).	Found in cismontane woodland and valley and foothill grassland/clay from 15 to 1,200 meters (CNPS, 2010).	March-May	No. The project site does not provide habitat for this species.
Campanula exigua Chaparral harebell	--/--/1B	Known to occur in Alameda, Contra Costa, San Benito, Santa Clara, and Stanislaus counties (CNPS, 2010).	Found in chaparral (rocky, usually serpentinite) from 275 to 1,250 meters (CNPS, 2010).	May-June	No. The project site does not provide habitat for this species.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	--/--/1B.2	Known to occur in Alameda, Contra Costa, Monterey, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, and Solano counties (CNPS, 2010).	Found in valley and foothill grasslands (alkaline) from 1 to 230 meters (CNPS, 2010).	May–October (November)	No. The project site does not provide habitat for this species.
Chorizanthe pungens var. *hartwegiana* Ben Lomond spineflower	--/--/1B.1	Known to occur in Santa Cruz County (CNPS, 2010)	Found in lower montane coniferous forests from 90 to 610 meters (CNPS, 2010)	April – June	No. The project site does not provide habitat for this species.
Chorizanthe robusta var. *robusta* Robust spineflower	FE/--/1B.1	Known to occur in Alameda (though may be extirpated), Monterey, Marin (uncertain), Santa Clara (may be extirpated), Santa Cruz, San Francisco, and San Mateo (though may be extirpated) counties (CNPS, 2010).	Found in chaparral, cismontane woodland, coastal dunes, and coastal scrub/sandy or gravelly substrate from 3 to 300 meters (CNPS, 2010).	April-September	No. The project site does not provide habitat for this species.
Cirsium fontinale var. *campylon* Mt. Hamilton fountain thistle	--/--/1B.2	Known to occur in Alameda, Santa Clara and Stanislaus counties (CNPS, 2010).	Found in chaparral, cismontane woodland, and valley and foothill grasslands (serpentinite seeps) from 100 to 890 meters (CNPS, 2010).	April-October	No. The project site does not provide habitat for this species.
Collinsia multicolor San Francisco collinsia	--/--/1B.2	Known to occur in Monterey, Santa Clara, Santa Cruz, San Francisco, and San Mateo counties (CNPS, 2010).	Found in closed-cone coniferous forest and Coastal scrub/sometimes serpentinite from 30 to 250 meters (CNPS, 2010).	March-May	No. The project site does not provide habitat for this species.
Cordylanthus maritimus ssp. *palustris* Point Reyes bird's-beak	--/--/1B.2	Known to occur in Alameda (though may be extirpated), Humboldt, Marin, Santa Clara (though may be extirpated), San Mateo (though may be extirpated), and Sonoma counties. Also occurs in Oregon (CNPS, 2010).	Found in marshes and swamps (coastal salt) from 0 to 10 meters (CNPS, 2010).	June-October	No. The project site does not provide habitat for this species.
Dudleya satchellii Santa Clara Valley dudleya	FE/--/1B	Known to occur in Santa Clara County (CNPS, 2010).	Found in cismontane woodland, valley and foothill grassland, serpentine/rocky soils from 60 to 455 meters (CNPS, 2010).	April-October	No. The project site does not provide habitat for this species.

Scientific Name Common name	Federal/ State/ CNPS	Distribution	Habitat Requirements	Period of Identification	Potential to Occur in the Project Site
Eryngium aristulatum var. *hooveri* Hoover's button celery	--/--/1B.1	Known to occur in Alameda, San Benito, Santa Clara, and San Luis Obispo counties (CNPS, 2010).	Found in vernal pools and lagunas from 3 to 45 meters (CNPS, 2010).	July	No. The project site does not provide habitat for this species.
Fritillaria liliacea fragrant fritillary	--/--/1B.2	Known to occur in Alameda, Contra Costa, Monterey, Marin, San Benito, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma counties (CNPS, 2010).	Found in cismontane woodland, coastal prairie, coastal scrub, and Valley and foothill grasslands/often serpentinite, from 3 to 410 meters (CNPS, 2010).	February-April	No. The project site does not provide habitat for this species.
Hoita strobilina Loma Prieta hoita	--/--/1B	Known to occur in Alameda (though may be extirpated), Contra Costa, Santa Clara, and Santa Cruz counties (CNPS, 2010).	Found in chaparral, cismontane woodland, and riparian woodland/usually serpentinite, mesic from 30 to 860 meters (CNPS, 2010).	May-July (August-October)	No. The project site does not provide habitat for this species.
Lasthenia conjugens Contra Costa goldfields	FE/--/1B.1	Known to occur in Alameda, Contra Costa, Mendocino (though may be extirpated), Monterey, Marin, Napa, Santa Barbara (though may be extirpated), Santa Clara (though may be extirpated), Solano, and Sonoma counties (CNPS, 2010).	Found almost exclusively in vernal pools. Can Also in mesic areas of woodland, grassland, and alkaline playas from 0 to 470 meters (CNPS, 2010).	March-June	No. The project site does not provide habitat for this species.
Malacothamnus arcuatus Arcuate bush mallow	--/--/1B.2	Known to occur in Santa Clara, Santa Cruz, and San Mateo counties (CNPS, 2010).	Found in chaparral and cismontane woodland from 15 to 355 meters (CNPS, 2010).	April-September	No. The project site does not provide habitat for this species.
Malacothamnus hallii Hall's bush-mallow	--/--/1B.2	Known to occur in Contra Costa, Mendocino, Merced, Santa Clara, San Mateo and Stanaslaus counties (CNPS, 2010).	Found in chaparral and coastal scrub from 10 to 760 meters (CNPS, 2010).	May–September (October)	No. The project site does not provide habitat for this species.
Monardella villosa ssp. *globosa* robust monardella	--/--/1B.2	Known to occur in Alameda, Contra Costa, Humboldt, Lake, Mendocino, Napa, Santa Clara, Santa Cruz, San Mateo, and Sonoma counties (CNPS, 2010).	Found in broad-leafed upland forest (openings), Chaparral, Cismontane woodland, Coastal scrub, and Valley and foothill grassland from 100 to 915 meters (CNPS, 2010).	June-July (August)	No. The project site does not provide habitat for this species.
Navarretia prostrata prostrate vernal pool navarretia	--/--/1B.1	Known to occur in Alameda, Los Angeles, Merced, Monterey, Orange, Riverside, San Bernardino, San Benito, San Diego, San Luis Obispo counties (CNPS, 2010).	Found in coastal scrub, meadows and seeps, valley and foothill grasslands (alkaline), and vernal pools (mesic), from 15 to 700 meters (CNPS, 2010).	April-July	No. The project site does not provide habitat for this species.
Pentachaeta bellidiflora white-rayed pentachaeta	FE/CE/1B.1	Known to occur in Marin (though may be extirpated), Santa Cruz (though may be extirpated), and San Mateo counties (CNPS, 2010).	Found in cismontane woodland and Valley and foothill grassland (often serpentinite) from 35 to 620 meters (CNPS, 2010).	March-May	No. The project site does not provide habitat for this species.
Piperia candida white-flowered rein orchid	--/--/1B.2	Known to occur in Del Norte, Humboldt, Mendocino, Santa Cruz, Siskiyou, San Mateo, Sonoma, and Trinity counties. Also occurs in Oregon and Washington (CNPS, 2010).	Found in broadleaf upland forest, lower montane coniferous forest, and North Coast coniferous forest/sometimes serpentinite from 30 to 1310 meters (CNPS, 2010).	May-September	No. The project site does not provide habitat for this species.
Plagiobothrys glaber hairless popcorn flower	--/--/1A	Known to occur in Alameda (though may be extirpated), Marin (though may be extirpated), San Benito (though may be extirpated), and Santa Clara (though may be extirpated) counties (CNPS, 2010).	Found in meadows and seeps (alkaline) and marshes and swamps (coastal salt) from 15 to 180 meters (CNPS, 2010).	March-May	No. The project site does not provide habitat for this species.

Scientific Name Common name	Federal/ State/ CNPS	Distribution	Habitat Requirements	Period of Identification	Potential to Occur in the Project Site
Potamogeton filiformis Slender-leaved pondweed	--/--/2.2	Known to occur in Alameda, Butte, Contra Costa, El Dorado, Lassen, Merced, Mono, Modoc, Mariposa, Placer, Santa Clara*, Shasta, Sierra, San Mateo, Solano, Sonoma Counties, Arizona, Nevada , Oregon, Washington, and elsewhere (CNPS, 2010).	Found in marshes and swamps (assorted shallow freshwater) from 300 to 2150 meters (CNPS, 20t0).	May-July	No. The project site does not provide habitat for this species.
Streptanthus albidus ssp. *albidus* Metcalf Canyon jewel-flower	FE/--/1B.1	Known to occur in Santa Clara County (CNPS, 20t0).	Found in valley and foothill grassland from 45 to 800 meters (CNPS, 2010).	April-June	No. The project site does not provide habitat for this species.
Streptanthus albidus ssp. *peramoenus* most beautiful jewel-flower	--/--/1B.2	Known to occur in Alameda, Contra Costa, Monterey, Santa Barbara, Santa Clara, San Luis Obispo, and Stanislaus counties (CNPS, 20t0).	Found in chaparral, cismontane woodland, and Valley and foothill grassland/serpentinite, from 90 to t00 meters (CNPS, 2010).	(March) April-September (October)	No. The project site does not provide habitat for this species.
Suaeda californica California seablite	FE/--/1B. t	Known to occur in Alameda (though may be extirpated), Contra Costa, Santa Clara (though may be extirpated), Solano (though may be extirpated), and Sonoma (though may be extirpated/uncertain) counties (CNPS, 2010).	Found in marshes and swamps (coastal salt) from 0 to t5 meters (CNPS, 20t0).	July-October	No. The project site does not provide habitat for this species.
Tropidocarpum capparideum Caper-fruited trapidocarpum	--/--/1B.1	Known to occur in Alameda (though may be extirpated), Contra Costa (though may be extirpated), Fresno, Glenn (though may be extirpated), Monterey, Santa Clara (though may be extirpated), San Joaquin (though may be extirpated), and San Luis Obispo counties (CNPS, 2010).	Found in valley and foothill grassland (alkaline hills) from 1 to 455 meters (CNPS, 20t0).	March-April	No. The project site does not provide habitat for this species.
ANIMALS					
Invertebrates					
Branchinecta conservatio conservancy fairy shrimp	FE/--/--	Known from a few isolated populations distributed over a large portion of California's Central Valley and in southern California including Butte, Colusa, Glenn, Merced, Solano, Stanislaus, Tehama, Ventura, Yolo, and Yuba counties.	Found in ephemeral wetland habitats and vernal pools on clay, volcanic, and alluvial soils within annual grassland and pine forests from 5 to 1,700 meters.	Wet season: typically November-April (adults) Dry season: typically May-October (cysts)	No. The project site does not provide habitat for this species.
Euphydryas editha bayensis bay checkerspot butterfly	FT/--/--	Known exclusively to five regions; one on the San Francisco peninsula, one in San Mateo County, and four in Santa Clara County.	Occurs in habitats on serpentinite soils. Larval host plant is dwarf plantain (*Plantago erecta*). If dwarf plantain is unavailable, larvae may also use purple owl's clover (*Castilleja densiflora* or *C. exserta*).	February-May (mating flight) Wet Season (larvae)	No. The project site does not provide habitat for this species.
Lepidurus packardi vernal pool tadpole shrimp	FE/--/--	Known across the Central Valley and in the San Francisco Bay area. Counties include Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kings, Merced, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba.	Found in a wide variety of ephemeral wetland habitats. Typically vernal pools on High Terrace landforms within annual grassland.	Wet season: typically November-April (adults) Dry season: typically May-October (cysts)	No. The project site does not provide habitat for this species.

Scientific Name Common name	Federal/ State/ CNPS	Distribution	Habitat Requirements	Period of Identification	Potential to Occur in the Project Site
Tryonia imitator California brackish water snail	--/--/--	Known to occur in Los Angeles, Marin, Monterey, Orange, San Diego, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Sonoma, and Ventura counties.	Found in coastal lagoons, estuaries, and salt marshes in permanently flooded areas.	Consult Agency	No. The project site does not provide habitat for this species.
Amphibians					
Ambystoma californiense California tiger salamander	FT/CSC/--	Known to occur in Western California from Sonoma County in the north to Santa Barbara County in the south.	Breeds in vernal pools and ponds of grassland and open woodland of low hills and valleys. Will utilize burrows for refuge.	November-February (adults) March 15-May15 (larvae)	No. The project site does not provide habitat for this species.
Rana aurora draytonii California red-legged frog	FT/CSC/--	Currently found in coastal drainages from Marin County south to Baja California, Mexico. Range extends from the bay area and the central coast to along the Sierra Nevada Range. Only isolated populations have been documented in the Sierra Nevada, northern Coast, and northern Transverse ranges. Believed to be extirpated from the southern Transverse and Peninsular ranges, but still present in Baja California, Mexico.	Found in lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent vegetation.	May-November	No. The project site does not provide habitat for this species.
Reptiles					
Actinemys marmorata Western pond turtle	--/CSC/--	Known to occur along the west coast of North America from southern Washington, USA to northern Baja California, Mexico. Many populations have been extirpated and others continue to decline throughout the range, especially in southern California.	Requires aquatic habitats with suitable basking sites. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	All Year	Yes. See text.
Masticophis lateralis euryxanthus Alameda whipsnake	FT/CT/--	Inhabits the inner coast range from Alameda, Contra Costa, San Joaquin, and Santa Clara counties.	Found in chaparral, northern coastal sage scrub, and coastal sage scrub communities. May also occur in adjacent habitats including annual grassland, oak savannah, and oak-bay woodland. Requires rock outcrops for retreat and access to prey species from 0 to 153 meters.	May-August	No. The project site does not provide habitat for this species.
Birds					
Agelaius tricolor tricolored blackbird	--/CSC/--	Restricted to the Central Valley and surrounding foothills, throughout coastal and some inland localities in southern California, and scattered sites in Oregon, western Nevada, central Washington, and western coastal Baja California.	Nests in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near fresh water.	All Year	No. The project site does not provide habitat for this species.
Athene cunicularia western burrowing owl	--/CSC/--	Formerly common within the described habitats throughout the state except the northwest coastal forests and high mountains.	Yearlong resident of open, dry grassland and desert habitats, as well as in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats.	All Year	Yes. See text.

Scientific Name Common name	Federal/ State/ CNPS	Distribution	Habitat Requirements	Period of Identification	Potential to Occur in the Project Site
Charadrius alexandrinus nivosus western snowy plover	FT/CSC/--	Occurs along the California coast and inland near the Salton Sea, Mono Lake, and alkali lakes.	Most breeding occurs on dune-backed beaches, barrier beaches, and salt-evaporation ponds; Can inhabit inland salt ponds and lakes. Require sandy, gravely, or friable soil substrates for nesting. Winter habitat is primarily coastal: beaches, tidal flats, lagoon margins, and salt-evaporation ponds. Inland some birds regularly winter at agricultural waste-water ponds in San Joaquin Valley, CA, and at desert saline lakes (particularly Salton Sea) in s. California	All year	No. The project site does not provide habitat for this species.
Elanus leucurus white-tailed kite	--/CFP/--	Permanent resident of coastal and valley lowlands.	Found in savanna, open woodland, marshes, partially cleared lands and cultivated fields, mostly in lowland situations. Nests in trees.	Year round	Yes. See text.
Falco peregrinus anatum American peregrine falcon	FD/unknown code/--	Active nesting sites known along the coast north of Santa Barbara and other mountains in northern California.	Breeds mostly in woodland, forest, and coastal habitats near water on high cliffs or banks. Will nest on man-made structures and in the hollows of old trees or open tops of cypress, sycamore or cottonwood trees 50-90 feet above the ground.	Year Round (some migrate)	Yes. See text.
Geothlypis trichas sinuosa salt-marsh common yellowthroat	--/CSC/--	Breeding range bounded by Tomales Bay on the north, Carquinez Strait on the east, and Santa Cruz county to south, with occurrences in the Bay Area during migration and winter.	Found in salt marshes. Nests just above ground or over water, in thick herbaceous vegetation, often at base of shrub or sapling, sometimes higher in weeds or shrubs up to about 1 m.	March-July	No. The project site does not provide habitat for this species.
Melospiza melodia pusillula Alameda song sparrow	--/CSC/--	Known to occur in areas bordering southern and eastern fringes of San Francisco bay.	Commonly found in saltmarsh, brackish marsh, and fringe areas, where marsh vegetation is limited to edges of dikes, land fills, or other margins of high ground bordering salt or brackish water areas.	All Year	No. The project site does not provide habitat for this species.
Pelecanus occidentalis californicus California brown pelican	FE/CE/--	Known to occur in estuarine, marine subtidal, and marine pelagic waters along the California coast.	Nests on coastal islands of small to moderate size, which afford immunity from, attack by ground dwelling predators. Usually rests on water or inaccessible rocks (either offshore or on mainland), but also uses mudflats, sandy beaches, wharfs, and jetties	All Year	No. The project site does not provide habitat for this species.
Rallus longirostris obsoletus California clapper rail	FE/CE/--	Known to occur in San Francisco Bay region.	Found in salt water and brackish marshes traversed by tidal sloughs. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud bottomed sloughs.	All year	No. The project site does not provide habitat for this species.

Scientific Name Common name	Federal/ State/ CNPS	Distribution	Habitat Requirements	Period of Identification	Potential to Occur in the Project Site
Sternula antillarum California least tern	FE/CE/--	Breeding colonies are located along the coast from southern California to San Francisco Bay.	Found in marine and estuarine shores where small fish are abundant. Nest in loose colonies on the ground relatively free of human or predatory disturbance.	April - May	No. The project site does not provide habitat for this species.
Mammals					
Antrozous pallidus pallid bat	--/CSC/--	Locally common species at low elevations. It occurs throughout California except for the high Sierra Nevada from Shasta to Kern cos., and the northwestern corner of the state from Del Norte and western Siskiyou cos. to northern Mendocino Co.	Habitats occupied include grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests, generally below 2,000 meters. The species is most common in open, dry habitats with rocky areas for roosting. Roosts also include cliffs, abandoned buildings, bird boxes, and under bridges.	All Year	Yes. No. The project site does not provide habitat for this species. See text.
Reithrodontomys raviventris Salt marsh harvest mouse	FE/CE/--	Only known to occur in the saline emergent wetlands of San Francisco Bay and its tributaries	Pickleweed is the primary habitat. Does not burrow, but builds loosely organized nests. Requires higher areas for flood escape.	All Year	No. The project site does not provide habitat for this species.
Sorex vagrans halicoetes salt-marsh wandering shrew	--/CSC/--	Known to occur in within salt marshes of the south arm of San Francisco bay.	This species prefer a low, dense cover of salicornia.	All Year	No. The project site does not provide habitat for this species.
Vulpes macrotis mutica San Joaquin kit fox	FE/CT/--	Known to occur in Contra Costa County south to Kern County, California.	Found in alkali sink, valley grassland, foothill woodland. Hunts in areas with low sparse vegetation that allows good visibility and mobility.	All Year	No. The project site does not provide habitat for this species.

STATUS CODES

FEDERAL: U.S. Fish and Wildlife Service and National Marine Fisheries Service
FE Listed as Endangered by the Federal Government
FT Listed as Threatened by the Federal Government
FPD Proposed for Delisting
FD Federally Delisted
FC Candidate for Listing

STATE: California Department of Fish and Game
CE Listed as Endangered by the State of California
CT Listed as Threatened by the State of California
CSC California Species of Special Concern

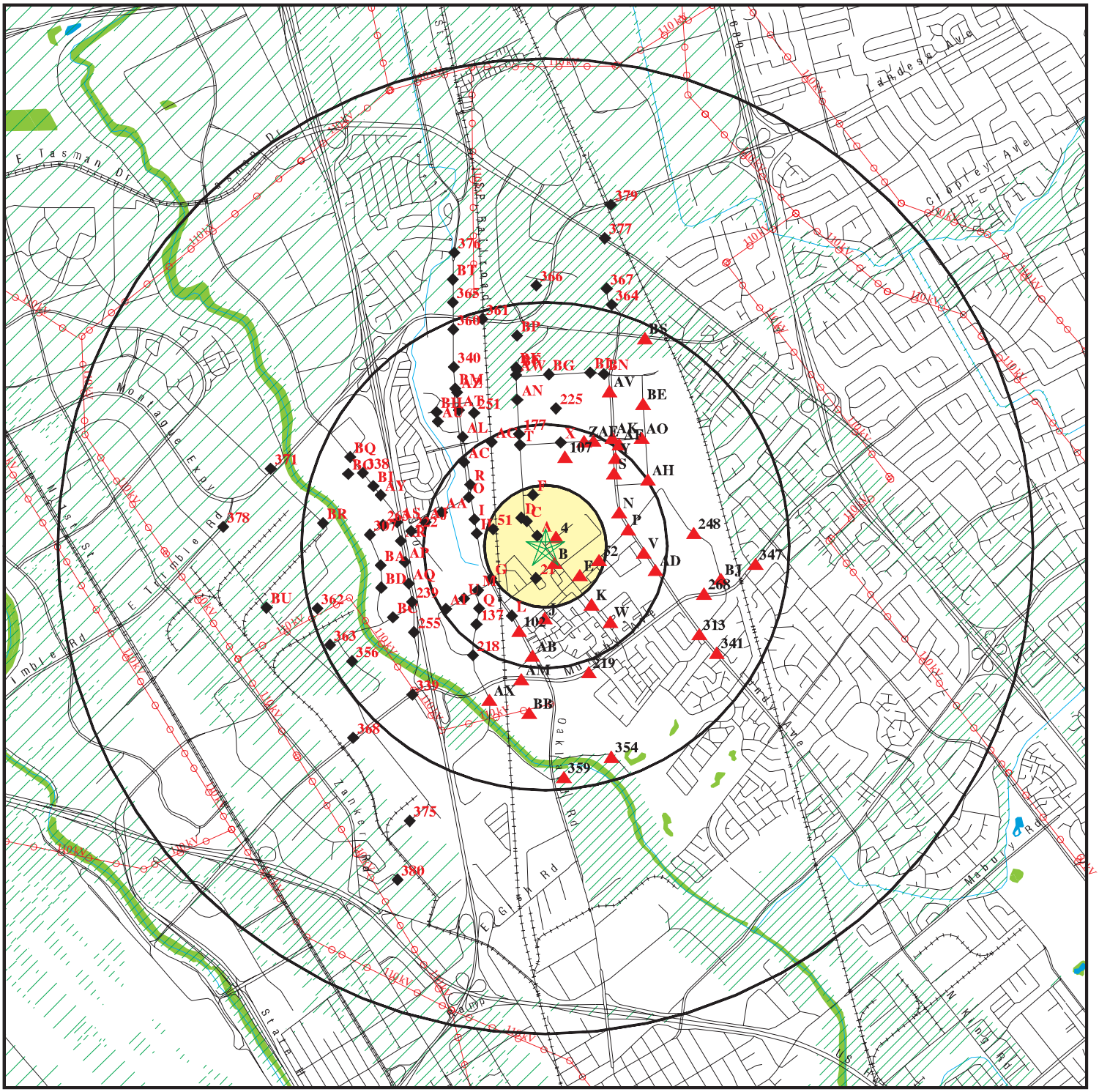
CNPS: California Native Plant Society
List 1B Plants rare or endangered in California and elsewhere
List 2 Plants rare or endangered in California, but more common elsewhere

SOURCES: U.S. Fish and Wildlife Service, 2009a; California Natural Diversity Data Base, 2003; California Native Plant Society, 2010; Moyle, 2002; Hickman, 1993

APPENDIX B

EDR MAPS

OVERVIEW MAP - 2708226.1s



SITE NAME: Alignment B and C	CLIENT: Analytical Environmental Serv.
ADDRESS: Ringwood Ave/Ringwood Court	CONTACT: Melissa Oberti
San Jose CA 95131	INQUIRY #: 2708226.1s
LAT/LONG: 37.3907 / 121.8960	DATE: February 25, 2010 12:57 pm

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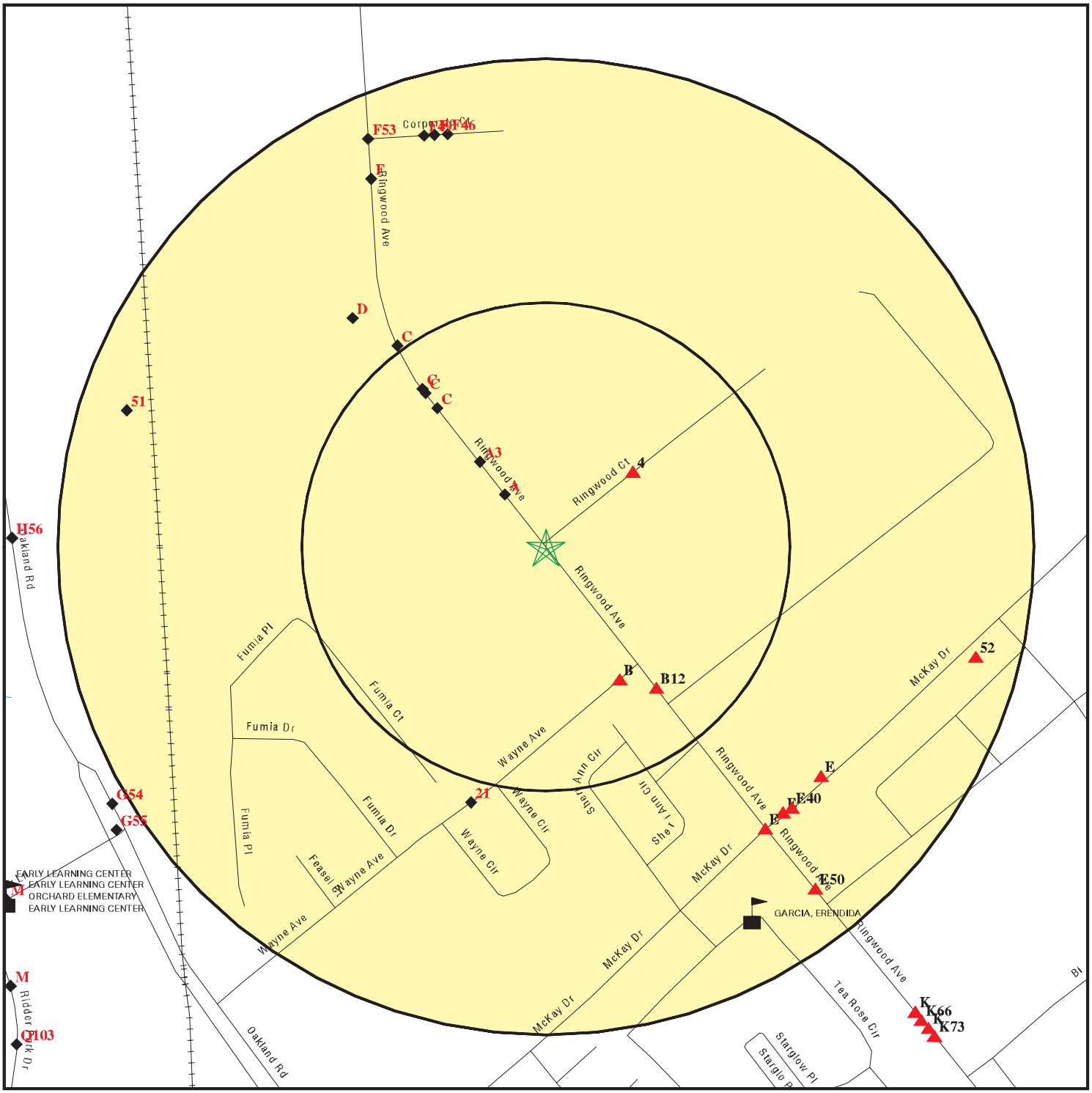
DETAIL MAP - 2708226.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

SITE NAME: Alignment B and C	CLIENT: Analytical Environmental Serv.
ADDRESS: Ringwood Ave/Ringwood Court	CONTACT: Melissa Oberti
San Jose CA 95131	INQUIRY #: 2708226.1s
LAT/LONG: 37.3907 / 121.8960	DATE: February 25, 2010 12:57 pm

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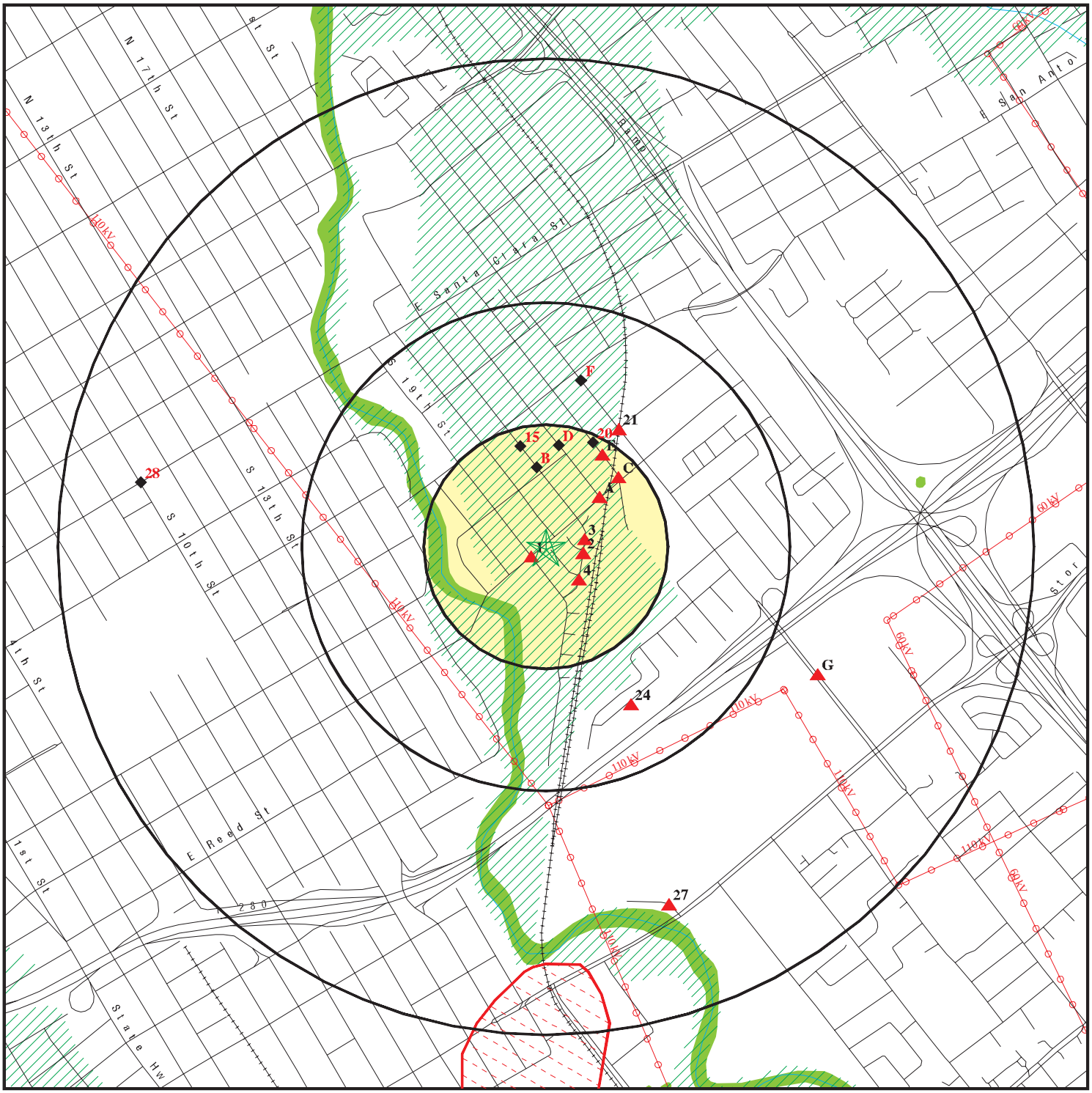
OVERVIEW MAP - 2708252.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

N

SITE NAME:	Alignment G	CLIENT:	Analytical Environmental Serv.
ADDRESS:	E Williams St/Mclaughlin Ave San Jose CA 95116	CONTACT:	Melissa Oberti
		INQUIRY #:	2708252.1s
LAT/LONG:	37.3388 / 121.8659	DATE:	February 25, 2010 12:57 pm

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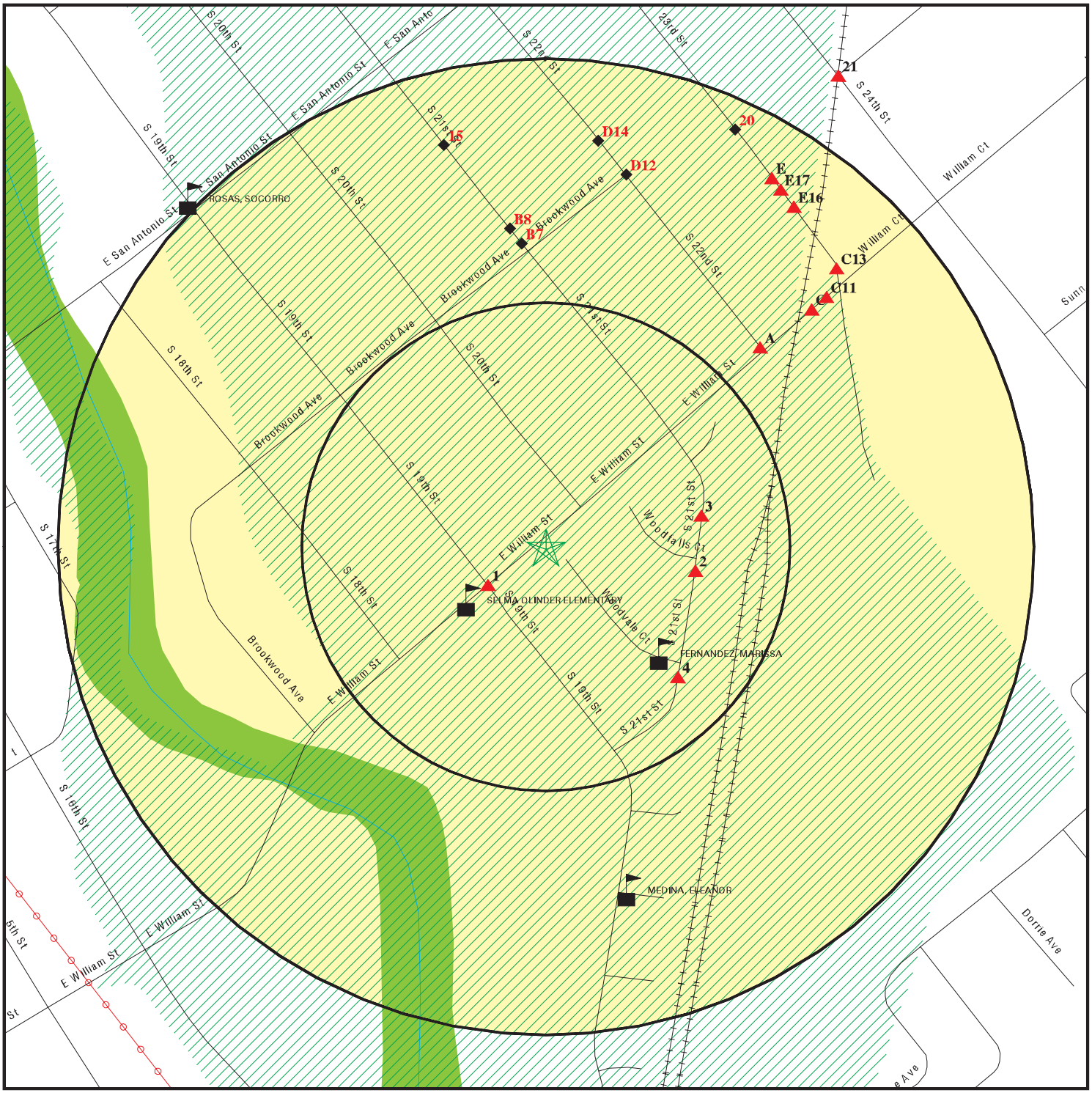
DETAIL MAP - 2708252.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

SITE NAME:	Alignment G	CLIENT:	Analytical Environmental Serv.
ADDRESS:	E Williams St/Mclaughlin Ave San Jose CA 95116	CONTACT:	Melissa Oberti
		INQUIRY #:	2708252.1s
LAT/LONG:	37.3388 / 121.8659	DATE:	February 25, 2010 12:57 pm

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OVERVIEW MAP - 2708270.1s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

N

SITE NAME: Alignment H	CLIENT: Analytical Environmental Serv.
ADDRESS: Fair Ave/Lucretia Ave San Jose CA 95122	CONTACT: Melissa Oberti
LAT/LONG: 37.3195 / 121.8470	INQUIRY #: 2708270.1s DATE: February 25, 2010 12:57 pm

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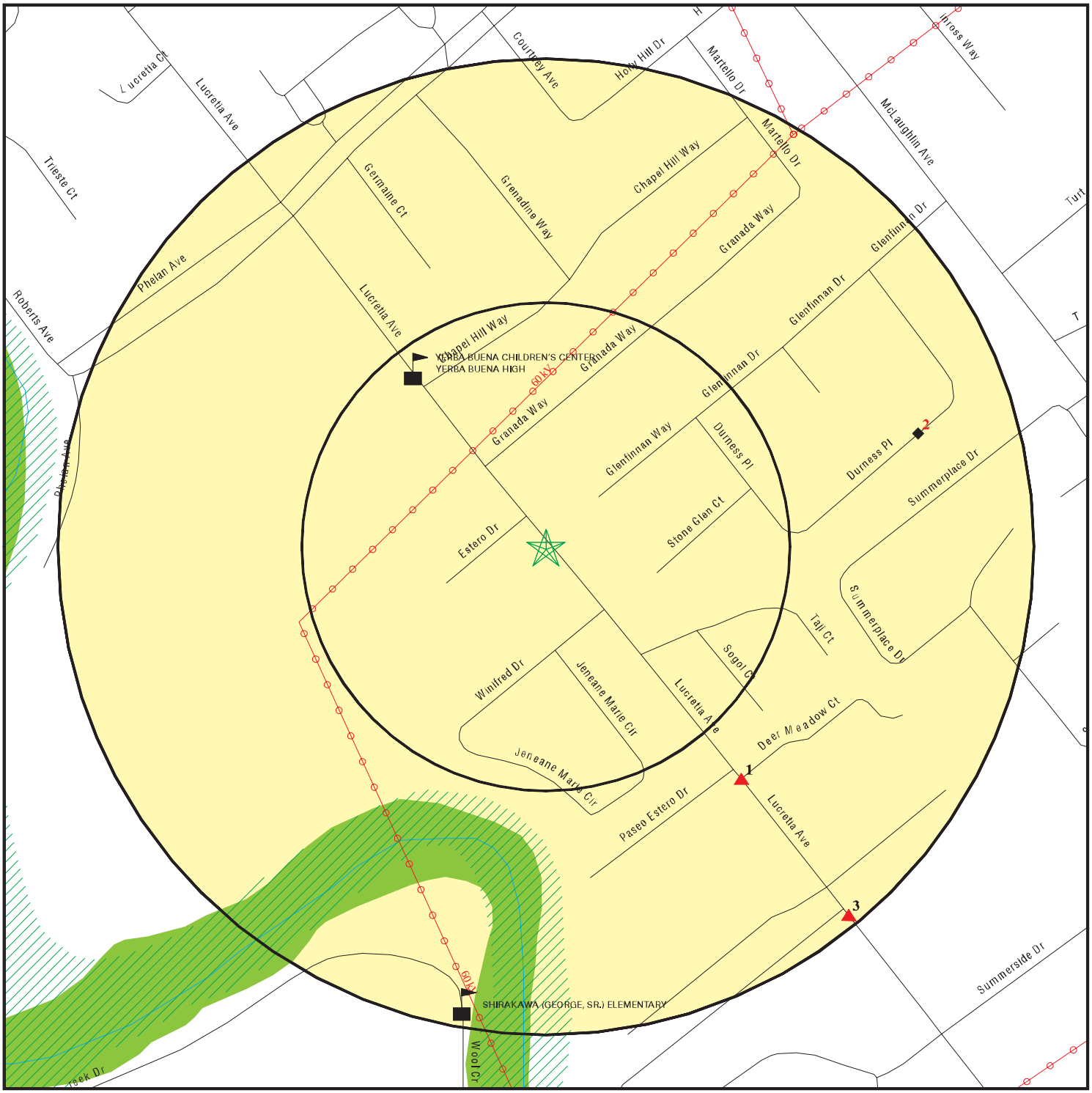
DETAIL MAP - 2708270.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

SITE NAME: Alignment H	CLIENT: Analytical Environmental Serv.
ADDRESS: Fair Ave/Lucretia Ave San Jose CA 95122	CONTACT: Melissa Oberti INQUIRY #: 2708270.1s
LAT/LONG: 37.3195 / 121.8470	DATE: February 25, 2010 12:57 pm

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APPENDIX C

COMMENT LETTERS AND RESPONSES

SCVWD COMMENT LETTER

Santa Clara Valley Water District

5750 ALMADEN EXPWY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2600
FACSIMILE (408) 266-0271
www.valleywater.org
AN EQUAL OPPORTUNITY EMPLOYER

File: 32260
Various

June 1, 2010

Mr. John Davidson
Planning Division
Department of Planning, Building, & Code Enforcement
City of San Jose
200 East Santa Clara Street, 3rd Floor
San Jose, CA 95113-1905

Subject: PP10-089 – Draft Mitigated Negative Declaration / Initial Study, San Jose Water Company Phase 1 Recycled Water Project

Dear Mr. Davidson:

The Santa Clara Valley Water District (District) has reviewed the draft Mitigated Negative Declaration (MND) / Initial Study (IS) to address changes to the recycled water Wholesaler-Retailer Agreement between the City of San Jose and San Jose Water Company and the construction, ownership, operation, and maintenance of four new recycled water pipelines in San Jose. The following are our comments:

Section 2.5
Phase 1 Recycled Water Pipeline Alignments, Page 2-6: The IS notes that a "permit from the SCVWD would be required for each creek crossing depending on the land ownership and in accordance with Ordinance 06.1.1." Based on the proposed recycled water pipeline alignments, a District permit will not be required. However, for clarification, the IS should refer to the District's Water Resource Protection Ordinance, which requires District review and permitting if work was to take place within District owned property, easement, or facilities.

Section 3.10.1
Table 3-7, Page 3-53: The document notes the Groundwater Quality Objectives from the San Francisco Basin Plan. However Table 3-7 references objectives for the Alameda Creek Watershed above Niles, and not the Coyote Creek Watershed as stated.

Regional Hydrology, Page 3-54: The IS should be revised to indicate the project as being located within the Santa Clara Subbasin in the Coyote Watershed and not the Santa Clara Valley watershed and Coyote Creek subbasin as stated.

Groundwater, Page 3-54: The TDS concentration of 3900 mg/l was observed at a salt water intrusion shallow monitoring well (Salt Water Monitoring Program). Please note that an observation at a single location is not representative of the entire shallow aquifer zone.

Furthermore, the expansion areas for the project are several miles south of this area with no direct aquifer connection. A more accurate statement would be that the shallow aquifer in the northern area of the subbasin is subject to saltwater intrusion.

Groundwater Mitigation and Monitoring Program, Page 3-56: The document erroneously states that monitoring is continuous under the current GMMP. Wells are monitored once a year and data collection provides a limited source of information.

In reference to the *Technical Memorandum 2 GMMP Database and Water Quality Evaluation* (Todd Engineers, 2009), it would be more accurate to state, as presented in the study, that "Evaluation of the GMMP data indicate that variability in groundwater quality exists at different locations in the groundwater basin and between the shallow and deep aquifer zones, and that some changes in groundwater quality have occurred between 1997 and 2009. It is not clear that the cause of the water quality changes is deep percolation of the RW used for irrigation." Alternatively please refer to page 16 in the Todd Engineer's report where it notes "that some COC concentrations in RW are lower than baseline groundwater concentration; nonetheless, it is still possible that irrigation and evaporation processes could concentrate certain constituents in the vadose zone, and resulting deep percolation could impact underlying groundwater quality."

Section 3.10.2
Groundwater, Page 3-59: The IS notes a potentially significant impact that requires mitigation. However , the final sentence of the paragraph is written as if there is no mitigation required, no mitigation is included in Section 3.10.4 (page 3-64), and the chart for Hydrology suggests no impacts that require mitigation. The measure that was developed to mitigate the impact is listed as a Standard Measure in Section 3.10.3, Operation Measures. The document should be revised to clarify if this is considered a significant impact or not.

If you have any questions or comments, you can contact me at (408) 265-2607, extension 3174 or at syung@valleywater.org.

Sincerely,

Samuel Yung

Samuel Yung
Associate Civil Engineer
Community Projects Review Unit

cc: Ms. Mary Hoang
Hydroscience Engineers
6090 Hellyer Avenue, Suite 150
San Jose, CA 95138

S. Tippets, S. Yung, S. Zhu, C. Elias, H. Ashktorab, File

32260_53121sy06-01

U.S. EPA COMMENT LETTER

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

June 4, 2010

Ryan Lee
Analytical Environmental Service
1801 7Th Street, Ste 100
Sacramento, CA 95811

Dear Ryan:

EPA has completed its review of the information you submitted about the proposed Recycled Water Pipeline Project ("Project") by the City of San Jose and San Jose Water Company, construction of which may encounter a contaminated groundwater plume from the Lorentz Barrel and Drum Superfund Site ("Site"). EPA provides the following comments about the Project information you submitted:

1. The approximate area of the Site-related contaminated groundwater plume area can be determined based on monitoring data from three groundwater monitoring wells installed as part of the Site remedy, MW-24, MW-40, and MW-39A. The contaminated shallow groundwater zone sampling results (represent water quality from depth range of approximately 25 - 35 feet below ground surface, or bgs) are included in the attachment of this letter. The wells are screened below a clay aquitard which is first encountered at the depths of approximately 10 – 15 bgs. There may be perched water zone above the aquitard.

From the Project information you submitted, it appears that only a small portion of pipeline construction area--the pipeline on the Keyes Street and Senter Road—may be impacted by the Site-related groundwater plume. The area east of Coyote Creek on Story Road is not impacted by the Site-related plume. Given the proximity of even a portion of the Project to the Site-related plume, however, EPA lists in items 2 – 6 below the kinds of things that may be appropriate to avoid adversely impacting human health and the environment, and help EPA to fulfill its regulatory oversight role in relation to the Site and Site-related contamination.

2. The Project should have a health and safety plan ("H&S Plan") that includes the following elements to ensure protection of field workers:

a. Site control (contaminated, supporting, and decontamination zones should be established in case contaminated materials are encountered in excavation and brought to the surface),
b. Decontamination plan,
c. Emergency Response Plan,
d. Confined space procedures,
e. Spill containment program,
f. Hazard communication plan

The H&S Plan also should require that all site workers conducting field excavation work within the contaminated groundwater plume area receive 40 hours of health and safety training with an annual refresher course. Proper personal protection equipment should be used during the work. Proper field monitoring instruments should also be used at the construction site all the time during the excavation.

3. The Project should have a waste management plan ("WMP") that addresses procedures for dealing with contamination that may be encountered during the excavation process (e.g., groundwater and potentially contaminated soils), including waste handling procedures, monitoring, temporary storage, and final disposal in accordance with applicable state and federal legal requirements.

4. Provide a construction schedule to EPA at least one week in advance of the commencement of construction so that EPA staff may coordinate their schedules in order to observe the construction activities.

5. It is unclear from the information submitted what depth of excavation is required for the Project. Construction or excavation 10 feet or more below the ground surface, however, likely will encounter the contaminated groundwater plume, although the actual depth to the shallow groundwater aquifer depends on field geologic information and may vary. If the planned depth of excavation is such that it is anticipated local dewatering activity will be necessary, please advise EPA a week in advance of the excavation and document the pumping rates, pumping volume, and duration. Please note that the Project should not be allowed to adversely impact the Site remedy (e.g., heavy dewatering which would mobilize contaminants towards Senter Road and Coyote Creek). If the San Jose Water Company can reach an arrangement with the contractor for the Potentially Responsible Parties at the Site, pumped groundwater potentially could be sent back to the Site for treatment.

6. After completion of the Project, provide a brief construction summary to EPA and document how the pipeline construction was performed (e.g., construction date, monitoring data, depth of trenching or excavation, dewatering activities, and waste management practice, etc.).

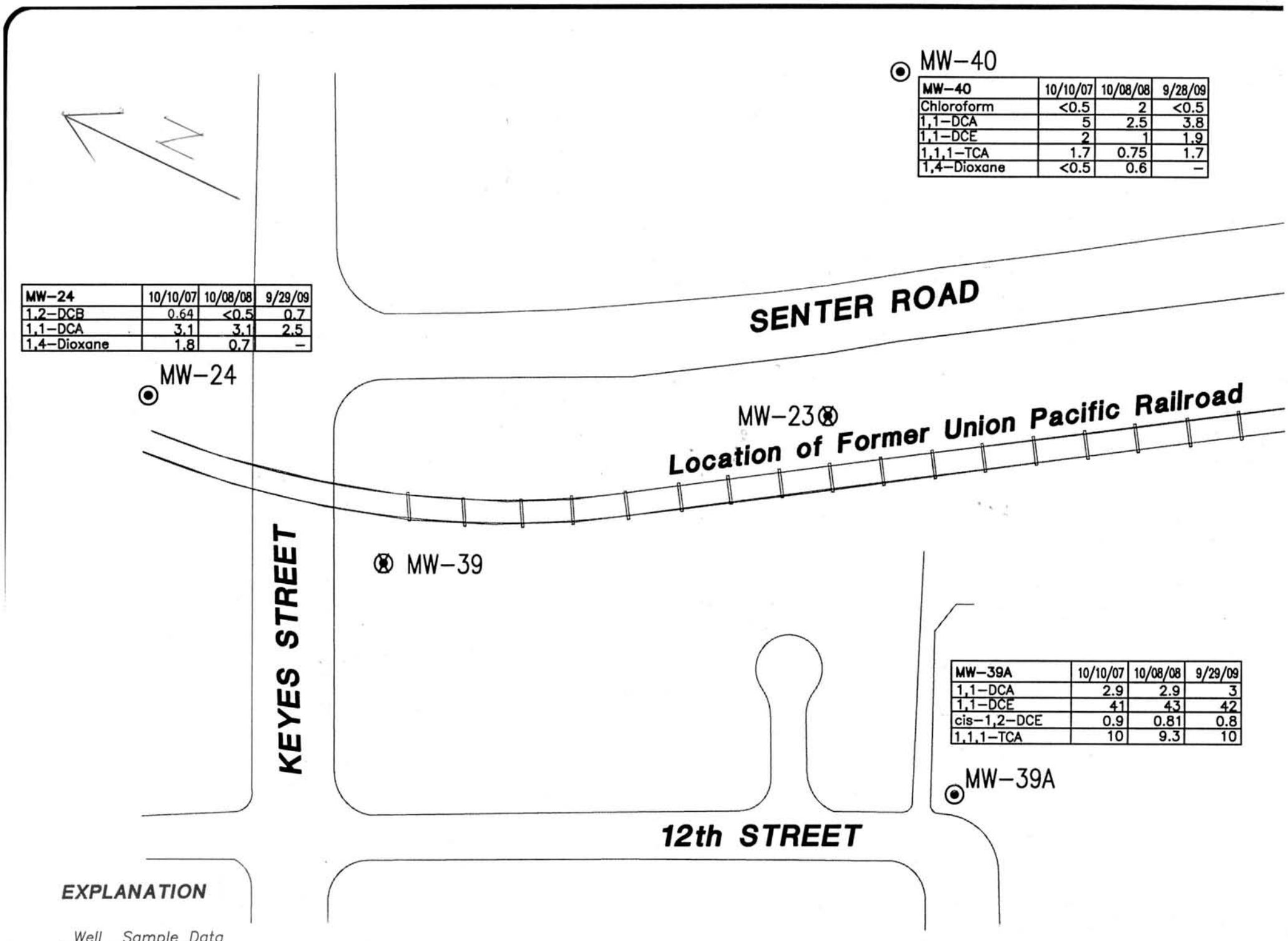
If you have any legal questions regarding the Lorentz Barrel & Drum Superfund Site, please contact the EPA attorney for the Site, Mr. Eric Esler, by phone at 415-972-3947 or by email at Esler.eric@epa.gov. If you have any technical questions regarding the Site, please let me know.

Sincerely,

Shiann-Jang Chern, PhD, PE.
Remedial Project Manager
USEPA, Region 9, Superfund Division
75 Hawthorne, SFD-7-1,
San Francisco, CA 94105
Tel: 415-972-3268
Fax: 415-947-3528
Email: Chern.shiann-jang@epa.gov

Attachment

cc: Eric Esler, USEPA, ORC
Henry Chui, DTSC



MW-40	10/10/07	10/08/08	9/28/09
Chloroform	<0.5	2	<0.5
1,1-DCA	5	2.5	3.8
1,1-DCE	2	1	1.9
1,1,1-TCA	1.7	0.75	1.7
1,4-Dioxane	<0.5	0.6	–

MW-24	10/10/07	10/08/08	9/29/09
1,2-DCB	0.64	<0.5	0.7
1,1-DCA	3.1	3.1	2.5
1,4-Dioxane	1.8	0.7	–

MW-39A	10/10/07	10/08/08	9/29/09
1,1-DCA	2.9	2.9	3
1,1-DCE	41	43	42
cis-1,2-DCE	0.9	0.81	0.8
1,1,1-TCA	10	9.3	10

EXPLANATION

Well Sample Data

MW-22	10/06/07	9/29/08	9/10/09
1,1-DCA	3.1	4	4.9
Vinyl Chloride	2	3.4	6.2
1,1-DCE	<0.5	0.37 J	1
1,4-Dioxane	–	–	39

Concentration in micrograms per liter (parts per billion)

RESPONSE TO COMMENTS

Letter from Santa Clara Valley Water District

Response to Comment 1 (page 1, paragraph 2): The text of the Final IS/MND has been revised to note that a permit from the SCVWD would be required for work within the SCVWD right-of-way in accordance with the District's Water Resource Protection Ordinance rather than Ordinance 06.1.1.

Response to Comment 2 (page 1, paragraph 3): Table 3-7 of the Final IS/MND has been revised to identify specific groundwater quality objectives outlined within the San Francisco Basin Plan.

Response to Comment 3 (page 1, paragraph 4): The text of the Final IS/MND has been revised to indicate that the project is located within the Santa Clara Subbasin in the Coyote Watershed.

Response to Comment 4 (page 1, paragraph 5): The text of the Final IS/MND has been revised to note that the TDS concentration of 3,900 mg/L was observed in a salt-water intrusion monitoring well located several miles north of the project alignments. In addition, the text has been clarified to note typical TDS concentrations in both the Shallow and Principle Aquifer in order to better characterize the aquifers nearer the project alignments.

Response to Comment 5 (page 2, paragraph 2): The text of the Final IS/MND has been revised to note that groundwater monitoring under the Groundwater Mitigation and Monitoring Program provides important, if limited, source of information and is conducted annually.

Response to Comment 6 (page 2, paragraph 3): The text of the Final IS/MND has been revised as suggested.

Response to Comment 7 (page 2, paragraph 4): The text of the Final IS/MND has been revised to state that implementation of the Standard Measures listed in Section 3.10.3 would ensure that the impact to groundwater quality would be less than significant.

Letter from United States Environmental Protection Agency

Response to Comment Letter: These recommendations have been incorporated into the Final IS/MND as mitigation for potential impacts involving hazardous materials.