

INITIAL STUDY
SAN JOSE WATER COMPANY
PHASE II RECYCLED WATER PROJECT
FILE NUMBER P11-041

JUNE 2011

LEAD AGENCY:

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



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200 East Santa Clara Street
San Jose, CA 95113



PREPARED BY:

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**PUBLIC NOTICE
INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
CITY OF SAN JOSÉ, CALIFORNIA**

File No. and Project Name/Description:

File No. PP11-041. San Jose Water Company Phase II Recycled Water Project. Environmental Clearance application to analyze potential environmental impacts associated with a total of seven alignments of recycled water pipeline to be constructed by the San Jose Water Company within the public right-of-way. The project is citywide.

California State Law requires the City of San José to conduct environmental review for all pending projects. Environmental review examines the nature and extent of any potentially significant adverse effects on the environment that could occur if a project is approved and implemented. Based on an initial study, the Director of Planning, Building & Code Enforcement has concluded that the project described above will not have a significant effect on the environment. The project location **does not** contain a listed toxic site. Pursuant to the conclusions of the Initial Study, the Director of Planning, Building & Code Enforcement has prepared a draft Mitigated Negative Declaration for this project.

The purpose of this notice is inform the public of the opportunity for public review and comments on the draft Mitigated Negative Declaration. The public review period for this draft Mitigated Negative Declaration begins on **July 8, 2011**, and ends on **August 8, 2011**. A public hearing to adopt the Mitigated Negative Declaration has not been scheduled as of the date of this notice. Adoption of a Negative Declaration does not constitute approval of the proposed project. The decision to approve or deny the project described above will be made separately as required by City Ordinance.

The draft Mitigated Negative Declaration, initial study, and reference documents are available for review under the above file number from 9:00 a.m. to 5:00 p.m. Monday through Friday at the City of San Jose Department of Planning, Building & Code Enforcement, City Hall, 200 East Santa Clara Street, San José CA 95113-1905. The documents are also available at the Dr. Martin Luther King, Jr. Main Library, 150 E. San Fernando St, San José, CA 95112, and online at <http://www.sanjoseca.gov/planning/eir/MND.asp#PP11-041>.

For additional information, please contact John Davidson at (408) 535-7895, or by e-mail at john.davidson@sanjoseca.gov.

Joseph Horwedel, Director
Planning, Building and Code Enforcement



Deputy

Circulated on: 7/8/2011

Updated 5/6/2011

MITIGATED NEGATIVE DECLARATION

The Director of Planning, Building and Code Enforcement has reviewed the proposed project described below to determine whether it could have a significant effect on the environment as a result of project completion. "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

NAME OF PROJECT: San Jose Water Company Phase II Recycled Water Project

PROJECT FILE NUMBER: PP11-041

PROJECT DESCRIPTION: Environmental Clearance application to analyze potential environmental impacts associated with a total of seven alignments of recycled water pipeline to be constructed by the San Jose Water Company (SJWC) within the public right-of-way.

PROJECT LOCATION : In the right of way, at various locations throughout the City of San Jose; see attached location map.

COUNCIL DISTRICT: all

APPLICANT CONTACT INFORMATION: Curtis Lam, Hydroscience Engineers, 741 Allston Way, Berkeley, CA 94710 **Phone:** 510/540-7100 ext. 12

FINDING:

The Director of Planning, Building & Code Enforcement finds the project described above will not have a significant effect on the environment in that the attached initial study identifies one or more potentially significant effects on the environment for which the project applicant, before public release of this draft Mitigated Negative Declaration, has made or agrees to make project revisions that clearly mitigate the effects to a less than significant level.

MITIGATION MEASURES INCLUDED IN THE PROJECT TO REDUCE POTENTIALLY SIGNIFICANT EFFECTS TO A LESS THAN SIGNIFICANT LEVEL

- I. **AESTHETICS.** The project will not have a significant impact on aesthetics or visual resources, therefore no mitigation is required.
- II. **AGRICULTURE AND FOREST RESOURCES.** The project will not have a significant impact on agriculture or forest resources, therefore no mitigation is required.

III. AIR QUALITY. 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, 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*.

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.

IV. BIOLOGICAL RESOURCES. 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 Owls

The parks, vacant lots, nonnative grassland, and ruderal/disturbed areas in the vicinity of Alignments A and R 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.

Nesting Birds

The trees within the riparian habitat in the vicinity of the bridges and within the ornamental trees in the vicinity of the project site provide nesting habitat for migratory bird species and other birds of prey. If active nests are present in these areas, construction activities associated with the installation of the pipelines beneath the 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 and state law. **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.

Pallid and Townsend's Big-Eared Bats

Potential roosting habitat for bats is present beneath the bridges and/or the trees within 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 these bats through injury or entrapment. **Mitigation Measure BR-3** requires preconstruction surveys and avoidance measures if active roosts are observed. With the implementation of **Mitigation Measure BR-3**, impacts to roosting sites for these bats would be reduced to less than significant.

Western Pond Turtles

Potential habitat for western pond turtles is present beneath the bridges that cross the streams and within the riparian habitat in the vicinity of the proposed pipeline alignments. If western pond turtles are 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 avoidance measures should western pond turtles be observed within construction areas. With the implementation of **Mitigation Measure BR-4**, impacts to western pond turtles would be reduced to less than significant.

BR-1 A qualified biologist shall conduct preconstruction surveys for burrowing owl within 14 days prior to commencement of construction activities within 500 feet of the parks, nonnative grassland, ruderal/disturbed areas, and vacant lots in Alignments A and R. In accordance with the CDFG burrowing owl survey protocol, the survey area will extend 500-feet from construction areas (CDFG, 1995) 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 determines 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 Director of Planning 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 pruning or removal. If bats are observed roosting beneath the bridges or trees anticipated to be pruned or removed, and the project can be constructed without disturbance, a bat biologist shall designate buffer zones as necessary to ensure that no bats will be disturbed. Buffer zones may include a 200-foot buffer zone from the roost until the biologist determines that the bat has vacated the roost and has excluded the bat from returning. Bat roosts should be monitored as determined necessary by a qualified bat biologist, and the exclusion of bats shall be performed in accordance 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 Director of Planning prior to the issuance of any encroachment permit or tree removal permit, if applicable.
- 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. Should a western pond turtle be identified, construction shall not commence until the biologist translocates the turtle or until the turtle leaves the construction site.
- V. CULTURAL RESOURCES.** The project site has a moderate potential for the discovery of archaeological resources and lies within an archaeologically sensitive area. Recommended

mitigation provides for monitoring in the vicinity of known areas of sensitivity and the protection of unanticipated discoveries during ground disturbing activities.

CR- 1 Monitoring of site excavation activities shall occur within 30 feet of P-43-00479 and P-43-000561, as determined by a qualified professional archaeologist 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 Director of Planning 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 Director of Planning, 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 Director of Planning. 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 Director of Planning.

VI. GEOLOGY AND SOILS. The project will not have a significant impact due to geology and soils, therefore no mitigation is required.

VII. GREENHOUSE GAS EMISSIONS. The BAAQMD CEQA 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 would result in the achievement 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.

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.

VIII. HAZARDS AND HAZARDOUS MATERIALS. The project will not have a significant hazards and hazardous materials impact, therefore no mitigation is required.

IX. HYDROLOGY AND WATER QUALITY. The project will not have a significant hydrology and water quality impact, therefore no mitigation is required.

X. LAND USE AND PLANNING. The project will not have a significant land use impact, therefore no mitigation is required.

XI. MINERAL RESOURCES. The project will not have a significant impact on mineral resources, therefore no mitigation is required.

XII. NOISE. Construction of the Proposed Project would result in a temporary increase in ambient noise levels. In addition, 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 and mitigation measures listed below. The Proposed Project would not expose persons to noise levels above the local standards or cause substantial temporary, periodic, or permanent increase in the ambient noise level.

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 where 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.

XIII. POPULATION AND HOUSING. The project will not have a significant population and housing impact, therefore no mitigation is required.

XIV. PUBLIC SERVICES. The project will not have a significant impact on public services, therefore no mitigation is required.

XV. RECREATION. The project will not have a significant impact on recreation, therefore no mitigation is required.

XVI. TRANSPORTATION / TRAFFIC. 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 would occur. These closures have the potential to impede emergency vehicles. Implementation of the mitigation measures listed below would require that all construction activities are coordinated with affected public agencies and local emergency service providers.

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.

XVII. UTILITIES AND SERVICE SYSTEMS. The project will not have a significant impact on utilities and service systems, therefore no mitigation is required.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE. The project will not substantially reduce the habitat of a fish or wildlife species, be cumulatively considerable, or have a substantial adverse effect on human beings, therefore no mitigation is required.

PUBLIC REVIEW PERIOD

Before 5:00 p.m. on **August 8, 2011**, any person may:

1. Review the Draft Mitigated Negative Declaration (MND) as an informational document only;
or
2. Submit written comments regarding the information, analysis, and mitigation measures in the Draft MND. Before the MND is adopted, Planning staff will prepare written responses to any comments, and revise the Draft MND, if necessary, to reflect any concerns raised during the public review period. All written comments will be included as part of the Final MND.

Joseph Horwedel, Director
Planning, Building and Code Enforcement

Circulation period from **July 8, 2011 to August 8, 2011**.


Deputy

Revised 5-6-11 jam

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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 various extensions to the City of San José South Bay Water Recycling (SBWR) Program's recycled water distribution system (Proposed Project) proposed by San Jose Water Company (SJWC - Applicant) within its March 2009 Recycled Water Master Plan (RWMP; HSe, 2009) and January 2011 update (HSe, 2011). 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.

- | | |
|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Land Use and Planning |
| <input type="checkbox"/> Agriculture and Forestry | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Noise |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Population and Housing |
| <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Public Services |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Transportation and Traffic |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Utility and Service Systems |
| <input checked="" type="checkbox"/> Hydrology and Water Quality | |

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 Milpitas 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 Jose Water Company (SJWC - Applicant) proposes to construct, own, and operate seven recycled water alignments 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. A previously approved amendment to the agreement allows SJWC to own and operate various previously approved recycled water infrastructure. Implementation of the Proposed Project would require additional amendments to the existing Wholesaler - Retailer Agreement to allow SJWC to construct, own, and operate each of the seven recycled water pipeline alignments analyzed in this Initial Study (IS). The City's discretionary approvals of the amendments to the Wholesaler - Retailer Agreement for the proposed recycled water facilities triggers the need for environmental review pursuant to the California Environmental Quality Act (CEQA). Additionally, construction of the proposed facilities will require the City's approval of encroachment permits. This IS has been prepared to address the proposed amendment to the Wholesaler Retailer Agreement to allow the construction and operation of recycled water alignments S, M, R, D, A, and N, as well as Phase 3 of Alignment C(Phase II). This section provides a description of the Proposed Project that serves as the basis for the assessment of potential environmental consequences in **Section 3.0**.

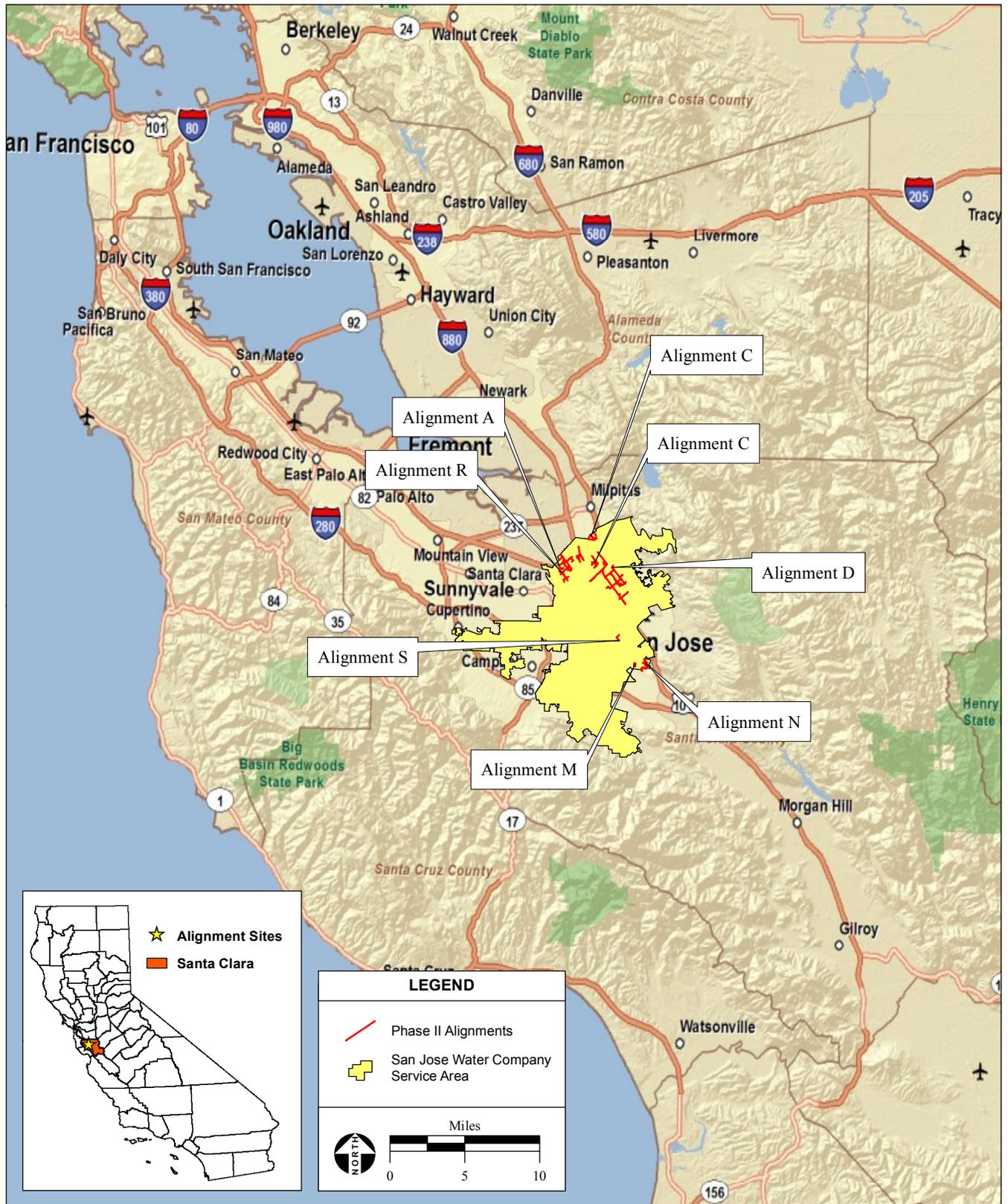
2.2 PROJECT LOCATION

The Proposed Project would result in the construction of seven 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**). All pipelines would be constructed within existing rights-of-way. 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 be conducted if the proposed alignments are significantly altered. Both optional and proposed segments of each alignment are analyzed within this IS to disclose the full range of potential environmental effects and minimize the need for future environmental review.

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



SOURCE: HydroScience Engineers, 2010; ESRI Server Data, 2010; AES, 2011

SJWC Phase II Recycled Water Project Initial Study / 209567 ■

Figure 2-1
Regional Location

as described above. **Figure 2-2** depicts SJWC's service area in relationship to the existing SBWR recycled water system, and the proposed alignments analyzed in this IS.

SOUTH BAY WATER RECYCLING PROGRAM

The SBWR program was formed by the City as the Administrative Agency to manage the distribution of recycled water produced by the San José/Santa Clara Water Pollution Control Plant (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 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:

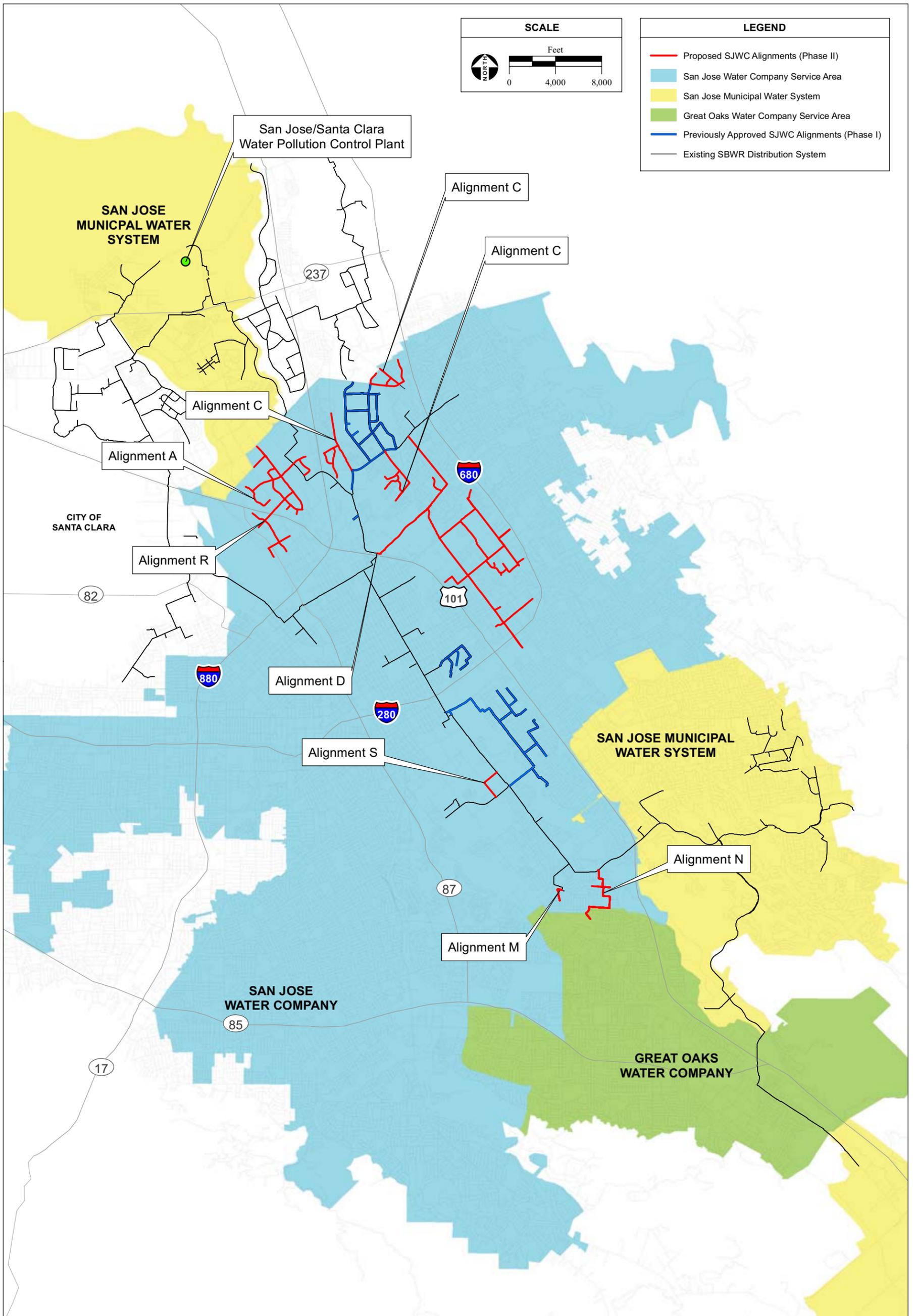
- The SBWR Transmission Pump Station (TPS), which serves as the main pump station providing recycled water to the system;
- A 108-inch diameter diversion pipeline that conveys disinfected tertiary effluent from the SJ/SC WPCP to the SBWR TPS;
- Two distribution system booster pump stations and three storage tanks; and
- Over 120 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).

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. The notice ended in September of



2010, and was commuted to 10% voluntary conservation, indicating that water supply problems persist (SCVWD, 2010b). 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.

SJWC RECYCLED WATER MASTER PLAN

In March 2009, SJWC completed a RWMP that identifies short-term and long-term goals related to recycled water development and use within its service area (HSe, 2009). In January 2011, an update to the RWMP was completed that refined and expanded several of the alignments identified in the 2009 draft. The RWMP and update identifies potential recycled water customers, estimated recycled water demands, and 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 are identified and considered within the 2009 SJWC RWMP. Two additional alignments were considered in the January 2011 update. Of the nineteen alignments considered in these two documents, four were previously implemented by the SJWC, and one by the City of San José. Seven of the remaining 14 alignments are currently being considered for implementation. The alignments being considered are predominantly near-term alignments, and some have the ability to be extended to other areas in the longer-term. Potential issues, including creek crossings, freeways, and local railway systems, were taken into consideration when routing pipeline alignments. Although the 2009 SJWC 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.

For purposes of environmental analysis, components of the RWMP were divided into two phases, each with independent utility. The first phase, referred to as the "Phase I Recycled Water Project," consisted of the development of four near-term pipeline alignments which have been analyzed within a separate IS/MND. The Phase II components, which are the focus of this IS, are described in detail in **Section 2.5** of this IS and have been further refined within the amendment to the RWMP completed in January 2011 (HSE, 2011).

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 original Agreement specified that SJWC owns recycled water meters and that all off-site facilities are owned, operated and maintained by SBWR. In June 2010, the City approved an amendment to the Agreement to allow SJWC to own, operate, and maintain the four near-term recycled water pipeline alignments included within the Phase I Recycled Water Project, described below. Additional amendments to the Wholesaler – Retailer Agreement would be required to allow SJWC to own, operate, and maintain each of the seven recycled water pipeline alignments analyzed in this IS.

SJWC Phase I Recycled Water Project

The SJWC Phase I Recycled Water Project consists of the construction and operation of four near-term extensions to the SBWR Program's recycled water distribution system described within the March 2009 RWMP: Alignment G, Alignment H, Alignment B, and Phases 1 and 2 of Alignment C. The Phase I Project consists of approximately 13 miles of pipeline that would serve approximately 109 user connections within an estimated recycled water demand of 880 acre-feet per year.

The City prepared an IS in accordance with CEQA and adopted a Mitigated Negative Declaration for the Phase I Recycled Water Project on June 22, 2010 (SCH #2010042101). The IS was tiered from the 1992 Final Environmental Impact Report for the San José Non-potable Reclamation Project (SCH #92013071) and associated Addendums 1 through 21. The IS determined that all impacts of the Phase I Project could be reduced to less than significant levels with the incorporation of mitigation measures.

Detailed design of SJWC's Phase I Recycled Water Project is currently underway, and construction of several of the alignments has been initiated.

2.4 PROJECT OBJECTIVES

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

- Contribute to 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

Amendments to Wholesaler - Retailer Agreement

Implementation of the Proposed Project requires an amendment to the existing Wholesaler - Retailer Agreement between the City and SJWC. Currently, the Wholesaler – Retailer Agreement allows SJWC direct ownership and responsibility for the operations and maintenance of the four near term recycled water alignments described within the RWMP and previously approved by the City: Alignment B, Phases 1 and 2 of Alignment C, Alignment G, and Alignment H. Additional amendments to the agreement are needed to allow SJWC to construct the Phase II alignments described below. The amendments would allow SJWC to construct, own, operate, and maintain recycled water infrastructure that is funded by SJWC and developers within SJWC’s service area.

Phase II Recycled Water Pipeline Alignments

Implementation of the Proposed Project would allow for the construction of seven near-term recycled water pipeline alignments and associated user connections proposed within the RWMP: Alignment A, Phase 3 of Alignment C, Alignment D, Alignment M, Alignment N, Alignment R, and Alignment S. Construction would be subject to CPUC approval and approval of an amendment to the Wholesaler – Retailer Agreement between SJWC and the City of San José for each alignment or set of alignments. It is anticipated that the alignments will be approved in a group. Barring substantive alteration in the routing of any alignment, this IS constitutes adequate CEQA review for the amendment to the Wholesaler – Retailer Agreement and required encroachment permits. **Figure 2-2** shows the location of the seven proposed pipeline alignments evaluated within this Initial Study in relation to the existing SBWR recycled water distribution system and previously approved SJWC Phase I Recycled Water Project Components. Detailed individual alignment sheets are provided as **Appendix A**. 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. In accordance with the SCVWD’s Water Resource Protection Ordinance, SCVWD 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.

The addition of recycled water demand as part of this project contributes to a need to install additional pumping and storage in the SBWR distribution system. SJWC’s cost share for the required pumping and storage improvements will be determined as part of the terms of the Wholesaler-Retailer Agreement Amendment.

TABLE 2-1
PROPOSED RECYCLED WATER PIPELINE ALIGNMENTS

Pipeline Alignment	Linear Feet (LF) of Pipeline ^a	Number of User Connections	Estimated Recycled Water Demand (AFY)
Alignment A: Charcot Ave.	21,900	73	232
Alignment C: Oakland Rd. (Phase 3)^b	24,400	39	241
Alignment D: Berryessa Rd. (Phase 2 and 3)^c	45,900	39	589
Alignment M: Seven Trees Blvd.	1,400	3	16
Alignment N: Sark Way	4,800	4	51
Alignment R: Airport Rd.	8,200	20	99
Alignment S: Burke St.	1,200	2	15
Total	107,800 LF	180	1,243 AFY

Note: ^a Totals do not include optional alignment segments. Optional alignment lengths are given in the description of each alignment.

^b Phases 1 and 2 of Alignment C are part of the Phase I Recycled Water Project analyzed in a previous IS (File No. PP10-089, SCH #2010042101)

Source: AES, 2010.

Alignment A – Charcot Avenue

Alignment A would extend from a point-of-connection (POC) with an existing 48-inch SBWR pipeline on Junction Road. The alignment would head southwest along Charcot Avenue then extend along Zanker Road, Bering Drive, O’Nel Drive, Brokaw Road, Devcon Court, Crane Court, Karina Court, and Component Drive. The alignment would supply recycled water to the 73 potential users along Alignment A, which have an estimated demand of 232 acre-feet per year (AFY). The proposed pipeline would cross the Santa Clara Valley Transportation Authority Light Rail (Light Rail) at the intersection of North First Street and Charcot Avenue. Construction of this alignment is expected to occur in a single phase.

The total length of this pipeline would be approximately 21,900 linear feet (LF), with pipeline diameters ranging from 4- to 12- inches.

Alignment A may also include an optional extension along Zanker Road to East Trimble Road, and along Charcot Avenue and Hartog Drive. As described under Alignment R below, the connection between Alignment A and Alignment R along Brokaw Road is an optional extension to provide water to Alignment R if the SBWR pipeline to Mineta Airport is not built. The total length of Alignment A with the optional segments included is 28,850 feet.

Alignment C Phase 3 – Oakland Road

Alignment C would connect to an existing 30-inch SBWR pipeline on Oakland Road. Alignment C would serve the Lundy Industrial Park area of North San Jose. The service area generally includes areas north of Murphy Avenue/Hostetter Road, areas south of Trade Zone Boulevard or Capitol Avenue, and between the railroad tracks to the east and west. Alignment C Phase 3 would serve approximately 39 potential users with an estimated demand of 241 AFY. Land uses in the service area include commercial, industrial, and multi-family residential. The construction of this alignment is expected to occur in three phases. Alignment C – Phases 1 and 2 includes pipelines within the central service area, and were

analyzed in previous environmental documentation for the SJWC Phase I Recycled Water Project (refer to **Section 2.3**). Phase 3 would include areas to the north of Trade Zone Boulevard, west of Oakland Road, south of Murphy Avenue, and east of Automation Drive, as well as two extensions into Ringwood Court and Corporate Court. The total length of the Phase 3 pipeline would be 24,400 LF, with pipeline diameters ranging from 4- to 18- inches.

If this alignment were to be extended east to connect to Alignment E, the total length of Phase 3 would be 30,700 LF. This would increase the total length of the Alignment C pipeline to 55,900 LF, including Phases 1, 2, and 3.

Alignment D – Berryessa Road

Alignment D would connect to an existing 42-inch SBWR pipeline on Mabury Road on the north side of Highway 101 near Berryessa Road. From Mabury Road, the main transmission pipeline would continue on Berryessa Road, then turn south on North King Road. Several laterals would extend from the main transmission pipeline to serve various users identified near the pipeline, including Vinci Park Way, McKee Drive, North Jackson Avenue, and Kammerer Drive. Alignment D would require a railroad crossing on Berryessa Road, one crossing of Penitencia Creek, one crossing of Miguelita Creek, one crossing of Coyote Creek, and one crossing of Lower Silver Creek. This alignment is expected to occur in three phases. Phase 1 would include the construction of a portion of the main transmission pipeline from the POC to the eastern frontage of the Berryessa Flea Market; however, this phase is considered a developer funded segment and, therefore, is not included as project component in this IS. Phases 2 and 3 would entail extensions to serve the remainder of the areas to the south and east. The total length of this pipeline would be approximately 45,900 LF, with pipeline diameters ranging from 4- to 24-inches.

Optional alignments include segments along Mabury Road between North King Road and North Jackson Avenue, along North Jackson Avenue to a residential development on Mossdale Way. Optional extensions to Alignment D may also be constructed to provide a POC for Alignment E and Alignment P. To provide a POC for Alignment E on Hostetter Avenue, Alignment D would extend from Berryessa Road northwest on Flickinger Avenue. To provide a POC for Alignment P on North King Road, Alignment D may also extend southeast along North King Road and across I-680. As described under Alignment P below, the connection between Alignment D and Alignment P was identified as the preferred option to supply recycled water to Alignment P. Should Alignment D be required provide water to Alignment E and/or Alignment P, its pipelines would need to be upsized accordingly. Construction of the optional extension to Alignment E would increase the total length of the pipeline to 70,700 LF. The additional LF that would result from construction of the extension to Alignment P is included in the total length estimations for Alignment P, discussed below.

Alignment M – Seven Trees Boulevard

Alignment M would extend an existing 8-inch SBWR pipeline west on El Cajon Drive to Seven Trees Boulevard where it would head south to serve 3 potential users, which have an estimated demand of 16 AFY. The construction of this alignment is expected to occur in a single phase. The total length of this pipeline would be approximately 1,400 LF, with a pipeline diameter of 4-inches.

Alignment N – Sark Avenue

Alignment N would connect to an existing 36-inch SBWR pipeline along Yerba Buena Road and head south through Sark Drive and Sacramento Avenue, west through Nokomis Drive, and south on LA Torre Avenue. A lateral would also extend east and west along Hellyer Avenue. This alignment would serve 4 potential users with an estimated demand of approximately 51 AFY. The construction of this alignment is expected to occur in a single phase. The total length of this pipeline would be approximately 4,800 LF, with a pipeline diameter of 8-inches.

The Valley Christian School, which has an estimated demand of 95 AFY and is located southwest of the alignment, was identified as an optional user for this alignment. Construction of this optional extension would increase the total length of the pipeline to 8,800 LF.

Alignment R – Airport Boulevard

Alignment R would connect to the planned extension of the SBWR distribution system along Airport Boulevard, which is designed to serve the Mineta San Jose International Airport, through a connection on either Skyport Drive or Airport Parkway. That extension would route recycled water to the east to Technology Drive, where a pipeline would extend the length of that road from north to south. Small laterals on Airport Parkway and Skyport Drive to the east would complete the alignment. The alignment would serve an area roughly bordered by Highway 87, Highway 101, North First Street, and Sonora Avenue. In total, this service area contains 20 potential users with a combined irrigation demand of approximately 99 AFY. The total length of this pipeline would be approximately 8,200 LF, with a pipeline diameter of 4-12 inches, unless they were upsized for other purposes,

Should the proposed SBWR pipeline along Airport Boulevard not be constructed, Alignment R would connect to Alignment A by extending the proposed pipeline northeast along Airport Parkway to Brokaw Road. The proposed pipeline would cross the Santa Clara Valley Transportation Authority Light Rail (Light Rail) at the intersection of North First Street and Airport Parkway. Construction of this optional extension would increase the total length of the pipeline to 8,900 LF.

Alignment S – Burke Street

Alignment S is an optional alignment that would connect to an existing 42-inch SBWR pipeline along Senter Road and a 16-inch pipeline along Tully Road. The alignment would serve an estimated demand of 15 AFY from Burke Industries and UTA with a 6-inch diameter pipeline along Burke Street and South 40th Street. Construction of this alignment is expected to occur in a single phase. The total length of this pipeline would be 3,000 LF.

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;
- 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 three customers within SJWC's service area, City Hall, Martin Luther King Jr. Library and the County Crime Lab, which utilize recycled water for toilet and urinal flushing. 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. 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 36 inches and the trench depth would 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.

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. The GMMP may be revised to include additional well locations and/or monitoring requirements as needed for the City to continue to fully monitor the impact recycled water use in new areas that would result from the proposed project.

2.5.4 SCHEDULE

The schedule for implementing these seven recycled water pipeline projects is unknown at this time. The schedule is contingent on a variety of factors, including securing available funding, CPUC approval, and adoption of the Wholesaler – Retailer Agreement Amendment(s), and obtaining the approval from anticipated users to use recycled water for non-potable uses. However, it is expected that the Alignments described in this Initial Study would be constructed during the upcoming General Rate Case period (2012 – 2014).

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(s) to the Wholesaler-Retailer Agreement between the City and SJWC to allow for operation of the Phase II Recycled Water Project facilities analyzed in this IS.
- 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 site plans for recycled water irrigation use.
- 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.

CALIFORNIA DEPARTMENT OF FISH AND GAME

- Issuance of a Streambed Alteration Agreement for any pipeline that crosses a stream or riparian area.

SANTA CLARA VALLEY WATER DISTRICT

- 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. Interstate 280 is eligible for designation as a state scenic highway, but has not yet been officially designated (Caltrans, 2007).

The development of the new SJWC recycled water conveyance system would occur within an existing urbanized area located within the City of San José. The project alignments would occur within existing public right of way easements along roadways surrounded by residential, commercial, and industrial uses. The land uses surrounding each alignment is described in detail in **Section 3.11**.

3.2.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>AESTHETICS</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
e) Increase the amount of shading on public open space (e.g. parks, plazas, and/or school yards)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Question A

Under the Proposed Project, recycled water pipelines would be installed within City rights-of-way for existing roadways. The distribution system would only be visible above ground where proposed users connect to the system. These distribution lines would not substantially alter scenic vistas, as there are no designated scenic vistas within the project area. Construction related aesthetic impacts, including the use of large sized heavy equipment, would be temporary in nature. Because construction activities would

progress in a linear manner, temporary aesthetic impacts 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 alignments would not be constructed within the alignment of a scenic highway. **No impact** to scenic resources within a scenic highway would occur.

Question C

The proposed recycled water pipelines would be located in previously disturbed urbanized areas. The recycled water conveyance system would be buried beneath roadways within existing SJWC easements and will not be visible after construction is complete. 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 aesthetic resources. **No cumulative impact** to the visual character of the sites would occur.

3.2.3 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

<u>AGRICULTURAL AND FOREST RESOURCES</u>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
<p>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:</p>					
<p>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?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 3
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 3
<p>c) Conflict with existing zoning for, or cause rezoning of, forest</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2

3.0 Environmental Analysis

<u>AGRICULTURAL AND FOREST RESOURCES</u>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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))?					
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 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 °F in July and winter minimum temperatures average 42.5 °F in January (WRCC, 2011).

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 (O₃), nitrogen dioxide (NO_x), sulfur dioxide (SO_x), carbon monoxide (CO), lead (Pb), and particulate matter 10 and 2.5 microns in size (PM₁₀ 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 has occurred.

The California CAA establishes maximum concentrations for the six CAPs, as well as four additional air pollutants in California (visibility reducing particles, sulfates (SO₄), hydrogen sulfide (H₂S), 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. 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		Violation Criteria	
		CAAQS	NAAQS	CAAQS	NAAQS
Ozone	1 hour	0.09 ppm (180 µg/m ³)	N/A	If exceeded	N/A
	8 hours	0.070 ppm (137 µg/m ³)	0.075 ppm	If exceeded	If exceeded on more than 3 days in 3 years
PM ₁₀	Annual arithmetic mean	20 µg/m ³	N/A	If exceeded	If exceeded
	24 hours	50 µg/m ³	150 µg/m ³	If exceeded	If exceeded on more than 1 day per year
PM _{2.5}	Annual arithmetic mean	12 µg/m ³	15 µg/m ³	If exceeded	If exceeded
	24 hours	N/A	35 µg/m ³	If exceeded	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
ppm = parts per million
µg/m³ = micrograms per cubic meter
Source: BAAQMD, 2011.

NAAQS and CAAQS Designations

Effective May 27, 2008, US EPA lowered the national 8-hour ozone standard from 0.80 to 0.75 parts per million (ppm). EPA will issue final designations based upon the new 0.75 ppm ozone standard by July 31, 2011. Until the new final designations are published, the current designations will be used. As shown in **Table 3-2**, the SFBAAB has been designated nonattainment for 8-hour O₃ and PM_{2.5} under the NAAQS and nonattainment for one-hour O₃, PM_{2.5}, and PM₁₀, 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)	Nonattainment	Nonattainment (Marginal)
(1-hour)	Nonattainment	N/A
PM ₁₀ (Annual arithmetic mean)	Nonattainment	N/A
(24-hour)	Nonattainment	Unclassified
PM _{2.5} (Annual arithmetic mean)	Nonattainment	Attainment
(24-hour)	N/A	Nonattainment

Source: BAAQMD, 2011

Pollutants of Concern

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

Ozone (O₃)

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 (O₃). Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, O₃ is primarily a summer air pollution problem. As a photochemical pollutant, O₃ is formed only during daylight hours under appropriate conditions, but is destroyed throughout the day and night. O₃ 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 PM_{2.5})

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 (PM₁₀) and 2.5 µm in diameter (PM_{2.5}) pose the greatest public health concerns, because they can traverse deep into the lungs (PM₁₀) 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 100 feet of residential uses along alignments C and D.

3.4.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>AIR QUALITY</u>	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 11
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 11
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 11
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 2010 BAAQMD California Environmental Quality Act (CEQA) Guidelines (Guidelines) thresholds of 54 pounds per day for ROG, PM_{2.5} and NO_x and 82 pounds per day of PM₁₀. As shown in **Table 3-3**, unmitigated construction emissions do not exceed the Guidelines threshold for ROG, NO_x, PM₁₀, and PM_{2.5}. However, to further reduce project emissions, mitigation measures in **Section 3.4.3** would be implemented. Because mitigated construction emissions are less than the BAAQMD CEQA thresholds 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}	CO ₂
	Pounds per Day				Tons per Year
2012	5.84 (5.84)	34.57 (47.80)	1.31 (3.01)	1.13 (2.33)	558.40.14 (558.40)
2013	5.48 (5.48)	32.21 (44.54)	1.21 (2.81)	1.04 (2.15)	522.32 (522.32)
2014	5.15 (5.15)	29.75 (41.14)	1.09 (2.56)	0.92 (1.92)	557.87 (557.87)
2015	4.28 (4.28)	24.67 (34.11)	0.88 (2.15)	0.73 (1.54)	326.47 (326.47)
Maximum Year Emissions	5.84 (5.84)	34.57 (47.80)	1.31 (3.01)	1.13 (2.33)	595.17 (595.17)
<i>BAAQMD Thresholds</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>	<i>N/A</i>
Exceedance	No (No)	No (No)	No (No)	No (No)	N/A

N/A = Not Applicable.
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 2,000 vehicle trips, a detailed air quality analysis is not required.

Operational emissions from maintenance trips were estimated using the 2007 URBEMIS air quality model. It should be noted that additional pumping capacity will be added to the SBWR distribution system that will accommodate the increase in recycled water use resulting from the Proposed Project. Additional pumping facilities would be electric and would not directly emit criteria pollutants. Indirect emissions of greenhouse gases from electricity use are discussed in **Section 3.8**. URBEMIS estimated direct operational emissions from maintenance activities 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 PM₁₀. As shown in **Table 3-4**, unmitigated operational emissions do not exceed the Guidelines threshold for ROG, NOx, PM₁₀ 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*.

Question C

As shown in **Table 3-2** the BAAQMD is in nonattainment for ozone, PM_{2.5}, and PM₁₀; 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 PM₁₀, then the project does not have a cumulatively considerable impact. As shown in **Tables 3-3** and **Table 3-4**, project emissions are below the Guidelines thresholds; therefore, the Proposed Project would have a *less than significant* contribution to cumulative impacts to air quality.

TABLE 3-4
UNMITIGATED OPERATIONS EMISSIONS

Operation Year	ROG	NOx	PM ₁₀	PM _{2.5}	CO ₂
	Tons per Year				
2014 Mobile	0.01	0.00	0.00	0.00	1.77
2020 Mobile (Cumulative)	0.00	0.00	0.00	0.00	0.31
<i>BAAQMD Thresholds</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>	<i>1,100</i>
Exceedance	No	No	No	No	No

Source: URBEMIS, 2007.

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 3.4.3**, 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 3.4.3**, 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 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

3.0 Environmental Analysis

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

Any person, firm, or agency planning to alter or work in navigable waters of the U.S., including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act of 1899 prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from the USACE (33 U.S.C. 403). Section 301 of the Federal Water Pollution Control Act and Amendments of 1972 (“Clean Water Act” (CWA)) prohibit the discharge of pollutants, including dredged or fill material, into waters of the U.S. without a Section 404 permit from USACE (33 U.S.C. 1344). State Water Quality Certification may be required by the San Francisco Bay Regional Water Quality Control Board before other permits are issued. California Fish and Game Code Section 1602 governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the California Department of Fish and Game (CDFG). Under Section 1602, state and local public agencies must obtain a discretionary Streambed Alteration Agreement (SAA) from the CDFG prior to the initiation of construction activities within lands under CDFG jurisdiction.

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 the FESA, federally threatened and endangered species 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 the 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 the 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 federally listed species or result in the destruction or adverse modification of designated critical habitat (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

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 the CESA, state agencies are required to consult with the CDFG when preparing California Environmental Quality Act (CEQA) documents. Under the 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 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.

CEQA Guidelines Section 15380

The CEQA Guidelines Article 20, Section 15380 provides that a species not listed on the federal or state list of protected species may be considered rare, threatened, or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions of endangered, rare, or threatened provided in the FESA and the CESA. This section of the Guidelines provides public agencies with the ability to protect a species from any potential impacts of proposed projects until the respective government agency has the opportunity to designate (list) that species as protected, if warranted. The California Native Plant Society (CNPS) maintains an extensive list of plant species that it considers to be rare, threatened, or endangered, but have no designated status or protection under federal or state endangered species legislation. Impacts to CNPS listed species (e.g., CNPS lists 1A, 1B, and 2) are considered pursuant during CEQA environmental review under CEQA Guidelines Section 15380.

California Fish and Game Code, Sections 3503, 3503.5, 3511, and 3800

California Fish and Game Code Sections 3503 and 3503.5 prohibit the take or needless destruction of bird nests or eggs; and prohibit the take, possession, and destruction of birds-of-prey (birds of the orders Strigiformes and Falconiformes; owls, falcons, and hawks). California Fish and Game Code Section 3511 lists birds that are "fully protected," which may not be taken or possessed except under specific permit. Depending on the presence of special status species or nesting raptors during periods of project construction, consultation with the CDFG may be necessary. California Fish and Game Code Section 3800 prohibit the take of nongame birds. Nongame birds are defined as, "all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds."

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 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

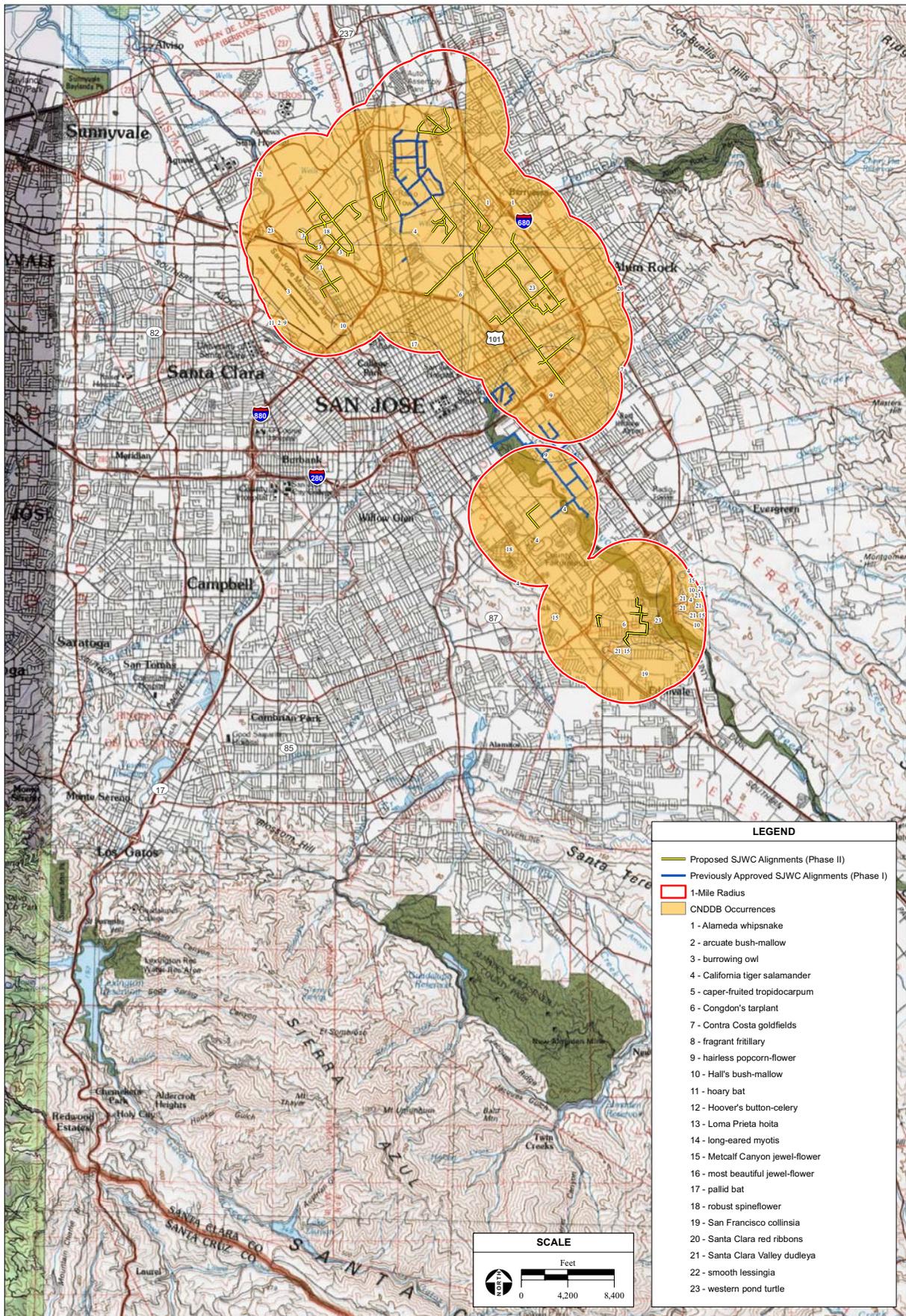
The City of San José Tree Removal Ordinance requires a discretionary permit process for the removal of trees over 56 inches in circumference (18 inches in diameter) at a height of two feet from the ground (City of San José Civil Code 13.32.020). The City of San José has adopted a Heritage Tree List (San 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, 2008).

Methodology

Information for the project site was obtained from the following sources: color aerial photographs of the surrounding project site (USDA NAIP Aerial Photograph, 2006, 2009; AEX Aerial Photograph, 2006); project site design (HydroScience Engineers, 2010); USFWS Wetlands Online Mapper (USFWS, 1985, 1993, and 2009) and U.S. Geological Survey (USGS) National Hydrological Dataset (USGS, 2000); USFWS list, dated April 29, 2010, 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, Milpitas, Calaveras Reservoir, Los Gatos, and Santa Teresa Hills USGS 7.5-minute quadrangles (quads) (USFWS, 2010); a CNPS query of special-status plants, dated January 4, 2011, known to occur on the San José East, San José West, Milpitas, Calaveras Reservoir, Los Gatos, and Santa Teresa Hills quads (CNPS, 2011); a California Natural Diversity Database (CNDDB) query, dated October 31, 2010, of special-status species known to occur on the San José East, San José West, Milpitas, Calaveras Reservoir, Los Gatos, and Santa Teresa Hills 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 USFWS, CNDDB, and CNPS lists are available in **Appendix B**.

Biological surveys of the project site and surrounding vicinity were conducted on April 14, 2010 and January 11, 2011. The biological surveys consisted of driving and/or walking along the proposed pipeline alignments and stream crossings to document biological communities and to assess whether potential habitat for special-status species occurs within the project site.

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 surveys. A discussion of the distribution and habitat requirements for each



SOURCE: California Natural Diversity Database, 6/2011; HydroScience Engineers, 2010;
 "San Jose, CA" USGS 100k Topographic Quadrangle, Mt. Diablo Baseline & Meridian; AES, 2011

SJWC Phase II Recycled Water Project Initial Study / 209567 ■

Figure 3-1
 CNDDB Special Status Species 1-Mile Radius Map
 Proposed SJWC Alignments (Phase II)

species, an evaluation of the potential for the species to occur in the project site, and a discussion of CNDDDB occurrences mapped within the project site are included in **Appendix B**. Species that have no potential to occur in the project site are not discussed further.

Environmental Setting

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).

Habitat Types Within and Adjacent to the Project Site

The entire project site is developed. Developed areas include paved roads, road shoulders, and bridges. Bridges over stream crossings and a canal occur within Alignments A, D, and R. The project site is immediately surrounded by parking lots, parks, Almaden Lake, an airport, percolation ponds, vacant lots, commercial development, industrial buildings, residential dwellings, nonnative grassland, ruderal/disturbed areas, and ornamental landscaping, including coast redwood (*Sequoia sempervirens*), peppertree (*Schinus* sp.), Deodar cedar (*Cedrus deodora*), sycamore (*Platanus* sp.), and pine (*Pinus* sp.). Locations of stream crossings by alignments and riparian vegetation in the vicinity of the stream crossings are identified below.

Coyote Creek flows northward beneath Charcot Avenue in Alignment A. Coyote Creek flows northward through the project site beneath Berryessa Road and Silver Creek flows westward through the project site beneath Mckee Road and King Road in Alignment D. Guadalupe River flows northward beneath a bridge along Skyport Drive in Alignment R. No riparian vegetation overhangs or abuts any of the bridges over the stream crossings within the project site. Dominant vegetation observed within the riparian habitat surrounding the streams in the vicinity of the project site includes: weeping willow (*Salix babylonica*), black walnut (*Juglans nigra*), arroyo willow (*Salix lasiolepis*), giant reed (*Arundo donax*), sedge (*Cyperus* sp.), Fremont cottonwood (*Populus fremontii*), ficus (*Ficus* sp.), willow (*Salix* sp.), privet (*Ligustrum* sp.), sycamore, and cattail (*Typha* sp.).

Special-Status Plants

The projects site does not contain habitat for any regionally occurring special-status plants. Therefore, no special-status plants would be impacted by the proposed project.

Special-Status Wildlife

The following special-status species have the potential to occur within the project site: Pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western burrowing owl (*Athene cunicularia*), western pond turtle (*Actinemys marmorata*), and migratory birds and nesting raptors.

Pallid Bats

Pallid bats, 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, caves,

crevices, mines, large hollow trees, and bridges. Pallid bats are most active during the dawn and dusk hours and forage over open ground. Pallid bats mate from October through February and most young are born from April through July (Harris, 2000). There are two CNDDDB records for this species within one mile of the project site. The bridges within the project site provide potential roosting habitat for this species. The trees within the ornamental landscaping and the riparian habitat in the vicinity of the project site provide roosting habitat 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.

Townsend's Big-Eared Bats

Townsend's big-eared bats, state listed species of concern, is found throughout California in a variety of habitats excluding alpine and subalpine. Townsend's big-eared bats prefer habitats near water. Townsend's big-eared bats roost during the day from April to October and hibernate from November to March. Roosting habitat consists of caves, mines, tunnels, or human-made structures. Summer maternity colonies range in size from a few dozen to hundreds of individuals. These colonies form between March and June with pups born between May and July. Maternity colonies choose sites that have warm, stable temperatures for pup rearing. Young are born in mid-June with about 90 percent of all females in the nursery colonies producing young. Males remain solitary during the maternity season. Roosting habitats occur in buildings and trees. There are no CNDDDB records for this species documented within one mile of the project site. The trees within the ornamental landscaping and within the riparian habitat in the vicinity of the project site provide roosting habitat for this species. Townsend's big-eared bats were not observed during the biological surveys within the project site. This species has the potential to roost in the vicinity of the project site.

Western Burrowing Owls

Western burrowing owls, 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 wintering occur in burrows dug by mammals (such as ground squirrels), pipes, culverts, and nest boxes. Western burrowing owls nest from March to August (CDFG, 2005). The project site does not provide habitat for this species. There are ten CNDDDB records for this species within one mile of the project site. Four of the ten records are mapped as polygons over Alignments A and R (occurrence numbers: 132, 184, 341, and 552). These records document burrowing owls in vacant lots, ruderal upland grassland areas, and/or unmowed strips between parking spaces within parking lots. The parks, vacant lots, nonnative grassland, and ruderal/disturbed areas in the vicinity of Alignments A and R provide nesting and wintering habitat for this species. The potential to occur in the vicinity of the alignments is based on the proximity of known CNDDDB records. 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, state species of concern, are found in permanent ponds, lakes, streams, irrigation ditches, permanent pools, and intermittent streams. Western pond turtles 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. Western pond turtles are found from sea level to 1,430 meters (Stebbins, 2003). There are three CNDDDB records for this species, mapped as five polygons, within one mile of the project site. The streams that cross beneath the project site and the surrounding

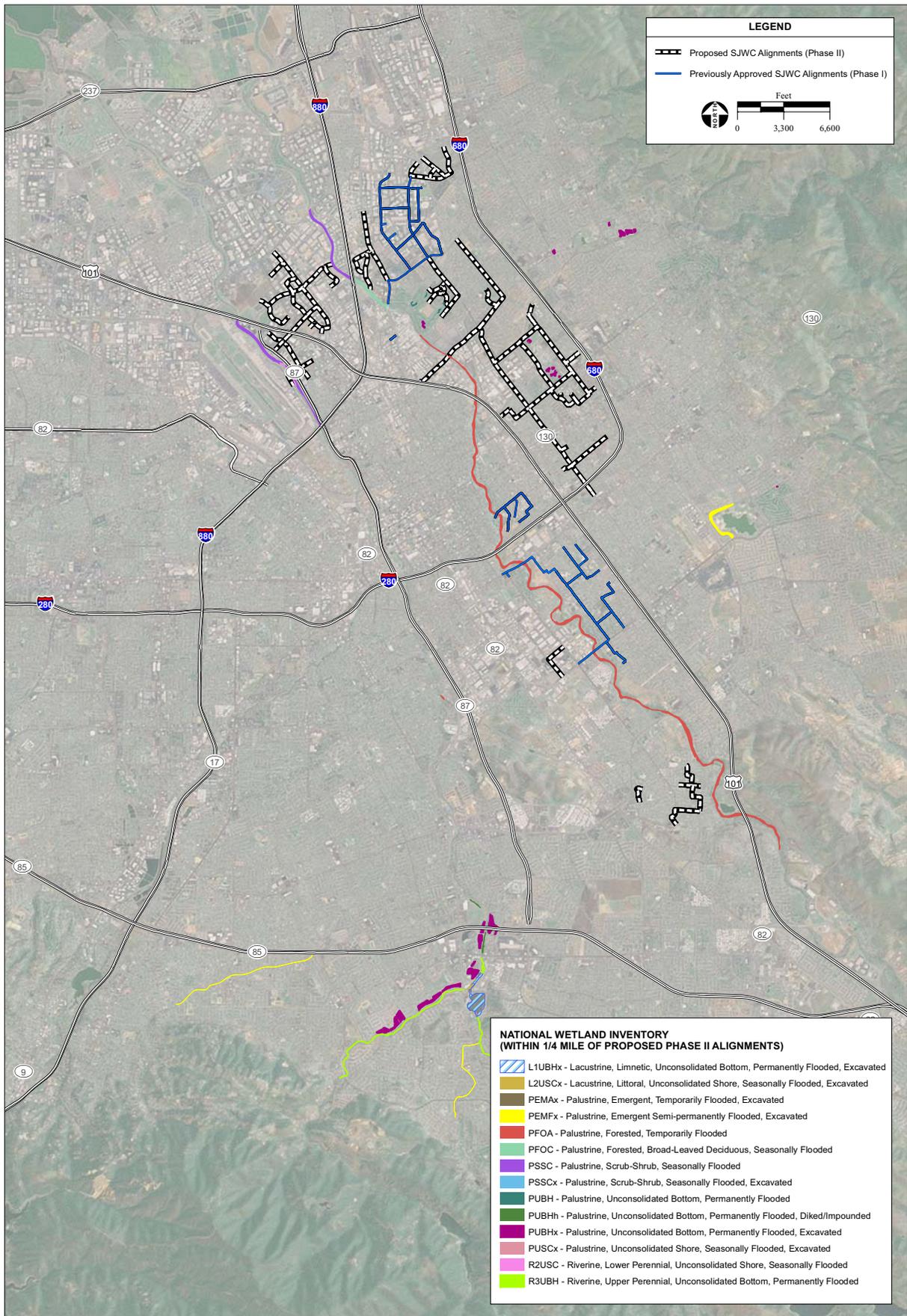
riparian vegetation provide habitat for this species. This species was not observed during the biological surveys of the project site. This species has the potential to occur in the vicinity of the project site.

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 osprey (*Pandion haliaetus*), Cooper's hawk (*Accipiter cooperii*), golden eagle (*Aquila chrysaetos*), American peregrine falcon (*Falco peregrinus anatum*), and white-tailed kite (*Elanus leucurus*). No birds were observed nesting in the vicinity of the bridges. No active nests were observed within the ornamental trees in the vicinity of the project site. Unoccupied nests were observed within several trees within the riparian habitat in the vicinity of the bridges and within the ornamental trees in the vicinity of the project site. 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.

The National Wetlands Inventory (NWI) Online Mapper and the National Hydrologic Dataset within Alignments A, D, and R of the project site (USFWS, 1985, 1993, and 2009 and USGS, 2000) identifies wetland features (**Figure 3-2**). The proposed pipelines would cross Coyote Creek, Silver Creek, and Guadalupe River. These features are 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

<u>BIOLOGICAL RESOURCES</u>	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 species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 Owls

The parks, vacant lots, nonnative grassland, and ruderal/disturbed areas in the vicinity of Alignments A and R 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

The trees within the riparian habitat in the vicinity of the bridges and within the ornamental trees in the vicinity of the project site provide nesting habitat for migratory bird species and other birds of prey. If active nests are present in these areas, construction activities associated with the installation of the pipelines beneath the 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 and state law. **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.***

Pallid and Townsend's Big-Eared Bats

Potential roosting habitat for bats is present beneath the bridges and/or the trees within 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 these bats through injury or entrapment. **Mitigation Measure BR-3** requires preconstruction surveys and avoidance measures if active roosts are observed. With the implementation of **Mitigation Measure BR-3**, impacts to roosting sites for these bats would be reduced to less than significant. ***Less than significant with mitigation.***

Western Pond Turtles

Potential habitat for western pond turtles is present beneath the bridges that cross the streams and within the riparian habitat in the vicinity of the proposed pipeline alignments. If western pond turtles are 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 avoidance measures should western pond turtles be observed within construction areas. With the implementation of **Mitigation Measure BR-4**, impacts to western pond turtles would be reduced to less than significant. ***Less than significant with mitigation.***

Question B

Riparian habitat occurs in the vicinity of the bridges within the project site. No riparian vegetation overhangs or abuts any of the bridges over the stream crossings within the project site, therefore, no riparian habitat would be removed. 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 within the riparian habitat in the vicinity of the project site to accommodate construction equipment. Pipeline creek crossings would be accomplished through directional drilling, pipeline suspension, or jack and bore construction methods. A Section 1602 SAA would be obtained from the CDFG for any work within the riparian habitat. Impacts to trees would be avoided through incorporation of standard measures required by the City's Tree Ordinance. With the standard measures identified below under Question E and conditions identified within the Section 1602 SAA, impacts to riparian habitat, a sensitive biological community, would be considered less than significant. ***Less than significant.***

Question C

Potentially jurisdictional waterways flow beneath the several 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 **Section 3.10.2**, potential impacts to water quality from sediment runoff would be avoided through standard Construction Measures required by the NPDES program. With the BMPs and mitigation measures identified within the 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 the streams. 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. The following standard 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 within each alignment. 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 within the alignment.
 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 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 ¹	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

Note:

x:x: Tree replacement to tree loss ratio

¹Trees greater than 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, 2008.

Removal of trees would not be considered a significant impact with compliance with the San José Tree Ordinance standard measures described above. **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 MITIGATION MEASURES

BR-1 A qualified biologist shall conduct preconstruction surveys for burrowing owl within 14 days prior to commencement of construction activities within 500 feet of the parks, nonnative grassland, ruderal/disturbed areas, and vacant lots in Alignments A and R. In accordance with the CDFG burrowing owl survey protocol, the survey area will extend 500-feet from construction areas (CDFG, 1995) 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 determines 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 Director of Planning 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 pruning or removal. If bats are observed roosting beneath the bridges or trees anticipated to be pruned or removed, and the project can be constructed without disturbance, a bat biologist shall designate buffer zones as necessary to ensure that no bats will be disturbed. Buffer zones may include a 200-foot buffer zone from the roost until the biologist determines that the bat has vacated the roost and has excluded the bat from returning. Bat roosts should be monitored as determined necessary by a qualified bat biologist, and the exclusion of bats shall be performed in accordance 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 Director of Planning prior to the issuance of any encroachment permit or tree removal permit, if applicable.
- 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. Should a western pond turtle be identified, construction shall not commence until the biologist translocates the turtle or until the turtle leaves the construction site.

3.6 CULTURAL AND PALEONTOLOGICAL 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. 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 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 culture. 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 encompassed an area of twenty seven square miles. 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 town site 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

A cultural resources records search was conducted (1) to determine whether known cultural resources have been recorded within or adjacent to the project area and to determine if previous surveys occurred within the project area; (2) to assess the likelihood of unrecorded and unevaluated 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. A record search from the Northwest Information Center (NWIC) of the California Historical Resources Information System was requested on January 21, 2011 (NWIC File No. 10-0619). Located at Sonoma State University, the NWIC is an affiliate of the State of California Office of Historic Preservation, and is an official state repository of archaeological and historic records and reports for a 16 county area that includes Santa Clara County. The requested search included site records, reports, historical maps, and listings from the California Office of Historic Preservation, California Inventory of Historical Resources (California Office of Historic Preservation, 1976), California Historical Landscapes, California Historical Landmarks (1990), California Points of Historical Interest, Historic Properties Directory Listing for San Jose, Santa Clara, and

Evergreen, The Historic Properties Directory for San Jose and Santa Clara, which includes the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP).

Known cultural resources within or directly adjacent to the area of potential effects (APE) (alignments) are listed in **Table 3-6**. The records search revealed previous surveys within the 0.125 mile radius of the proposed pipeline alignments. For the sake of brevity, studies are presented in bibliographic format only in **Section 6.0**.

TABLE 3-6
CULTURAL RESOURCES LOCATED WITHIN AND ADJACENT TO THE APE/ALIGNMENTS

Alignment	Identifier	Age	Constituents	Status	Author/Date
Alignment R	43-000479	Prehistoric	Habitation site with associated human burials	Unevaluated for NRHR/ CRHR	Pesnichak and Evans, 2004
Alignment A	43-000561	Prehistoric	Midden site with associated artifacts	Unevaluated for NRHR/ CRHR	Cartier, 1984
Alignment A	43-000927	Historic	Bridge	Not Eligible for NRHP Unevaluated for CRHR	Laffey, 1994a
Alignment C	43-000621	Prehistoric	Habitation site with associated human burials	Unevaluated for NRHR/ CRHR	Farnsworth, 1987
Alignment D	43-000922	Historic	Bridge	Not Eligible for NRHP Unevaluated for CRHR	Laffey, 1994b
Alignment R	43-000479	Prehistoric	Habitation site with associated human burials	Unevaluated for NRHR/CRHR	Pesnichak and Evans, 2004

Source: Northwest Information Center, 2011.

The records search suggested that the following sites may be located within the APE of the proposed project alignments: P-43-00479 and P-43-000561.

Site P-43-00479: Holman and Associates excavated approximately 80 percent of site P-43-00479 in 2001 in preparation for a development project (Wiberg, 2002). In 2002, prior to the above described development project, Holman and Associates excavated 90 human burials, 32 prehistoric features, and 2 historic features (trash pits) from the same general area (Pesnichak and Evans, 2005). They also excavated the southeastern portion of this site for a separate development project in 2002, resulting in the recovery of 15 additional human burials and 43 new features (Pesnichak and Evans, 2005). This site is of high sensitivity because of the burials and associated pathologies to the human remains (indications of violent trauma on the human remains). In addition to human and faunal remains, this site includes 71 prehistoric artifacts, 6 geological features, and 2 historic features. During excavation, they identified a paleo-channel along the eastern edge of the site. Excavation has occurred on the entirety of the known site; however, the reliability of the site boundaries is low. Prior burials, an open field to the west of the site, a paleo-channel, and a known nearby water source (the Guadalupe River to the west) suggest an area of high sensitivity and probability for cultural resources. Ground-disturbing activities are likely to unearth prehistoric Native American human remains and/or cultural resources.

Site P-43-000561: This site was located through previous utility trenching and is characterized as consisting of midden soils with shell and fire-baked clay debitage. The exact boundaries of this site are unknown. However, the site appears to concentrate closest to North First Street and is thought to extend, intact, beneath the roadway. The previous record of this site notes a high probability of human remains being present.

In addition to the cultural resources detailed above, there are numerous historic structures and residences along the proposed alignments and in the 0.125 mile radius records search area. These resources would not be affected by construction.

Native American Heritage Consultation

On January 18, 2011, the Native American Heritage Commission was requested to review its Sacred Lands File for information on Native American cultural resources in the project areas. The NAHC responded on February 3, 2011 stating that the search of the Sacred Lands File failed to indicate the presence of a Native American cultural resources in the immediate project area. The NAHC provided a list of Native American organizations and individuals who may have knowledge of cultural resources in the project area. These organizations and individuals were contacted by letter on February 4, 2011. The chairperson for the Indian Canyon Mutsun Band of Costanoan Indians requested information on Alignment Q and recommended a qualified Native American and archaeological monitor for earthmoving activities within the vicinity of this alignment. Because Alignment Q has since been removed from the scope of this IS, this consultation does not pertain to the Proposed Project. No additional responses have been received.

Field Survey

On May 11 and 12, 2011, AES archaeologists conducted a reconnaissance surface survey of the alignments with a high sensitivity and/or probability for cultural resources, including those areas with prehistoric archaeological sites, recorded burials and/or isolated human remains, open spaces, disturbed ground, or within 800 m of perennial water sources. Areas of high sensitivity and ground disturbance received the greatest scrutiny. In these project areas, archaeologists walked 66 ft (20 m) linear transects, generally in a north to south and/or east to west orientation. Compasses and handheld Global Positioning System (GPS) units were used to record boundaries, any cultural resources, and/or pertinent landforms. Survey data were collected using photography and paper records. Field notes produced include descriptions of geology, environmental setting, cultural resources, suburban land use, and disturbances. Records, historical and current maps were reviewed with regard to the remaining sections of the alignment and select locations with historical resources, and/or potential areas of concern were visited.

Archaeologists relocated the boundaries of all prehistoric sites within the project areas; however, all are now part of the suburban/urban landscape (e.g., shopping plazas, apartment complexes, local businesses) and are unrecognizable as prehistoric sites.

In the vicinity of Alignment R, Site P-43-00479 (formerly CA-SCL-478) is an unevaluated site where archaeologists recovered 105 Native American burials (Pesnichak and Evans, 2005). This site may continue to the west and southwest and as such it might occur within the APE of the project. (Pesnichak and Evans, 2005).

Paleontology Setting

A fossil locality search can (1) identify previous studies and known paleontological sites within or near the project area; and (2) identify the geologic formations and types of fossils that might be expected within and adjacent to the project area based on the existing geologic and paleontological data. A map of San José's geologic epochs shows Alignments M and N crossing Middle to Late Jurassic formations. The majority of the project lies on Pliocene to Holocene liquefaction hazard zones. Extensive urbanization of the project area limited effective paleontological survey, and a paleontological field survey was not conducted.

The project area lies upon an urban soil complex of highly disturbed and reworked soils. The native parent soils consist of Holocene (present to 10,000 years old) flood plain deposits. These soils are a grey buff in color and range from sandy-loam to silty-clay with local lenses of fine gravels. These deposits directly underlie the project area and are not sensitive for significant paleontological resources (Welch 1991). Underlying the Holocene sediments at an unknown depth are Pleistocene sediments. Beneath the Holocene flood plain deposits at unknown depths are Pleistocene (10,000 to 1.5 mya) alluvial deposits, which are sensitive as they may contain significant paleontological resources. These Pleistocene alluvial deposits may be encountered as shallow as 10 ft (~3 m) below the surface (Savage, 1951). In 2005, mammoth bones were exposed in the banks of the Guadalupe River north of the Mineta San Jose International Municipal Airport. Alignment A and R extend through an area near Mineta San Jose International Airport is of high sensitivity for paleontological resources. The bedrock formation in this region is known as the Franciscan Formation, it is a combination of various igneous and sedimentary rocks formed in the Cretaceous period (65 to 144 mya). This formation occurs at a depth of hundreds of feet below sediments. The Franciscan Formation is known to contain radiolarian fossils within its chert layers and can contain marine invertebrates within its sedimentary layers.

3.6.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>CULTURAL RESOURCES</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 5, 6, 29
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 5, 6, 29
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 5, 6, 29

<u>CULTURAL RESOURCES</u>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 5, 6, 29

Questions A-D

The project site has a moderate potential for the discovery of archaeological resources and lies within an archaeologically sensitive area. The following known cultural resource sites are located in the immediate vicinity of the proposed project alignments and could be adversely impacted by construction: P-43-00479 and P-43-000561. The majority of the project area is paved and/or developed, and has been previously disturbed, with the exception of portions of Coyote Creek, Guadalupe River, and Guadalupe Creek. There are a minimum of six cultural resources located within the Proposed Project’s APE/alignment (see **Table 3.6**). However, there is the potential for subsurface deposits associated with the known cultural resources, as well as unknown cultural resources, which may exist within the project area below the level of previous disturbance. As described in **Section 2.0**, all creek crossings and associated bridges will not be impacted as pipelines would be installed via directional drilling, jack and bore methods, and/or suspension from existing structures. Historical structures located along the alignment roadway should be unaffected providing nonextant structural foundations do not extend into the alignment. The project alignments have a moderate potential to affect paleontological resources. The following standard measure would apply to the Proposed Project and would reduce the potential for impacts to unknown paleontological resources that may be inadvertently discovered during construction:

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 Director of Planning. Mitigation measures presented in **Section 3.6.3** would reduce the potential for impacts to known and 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 MITIGATION MEASURES

CR- 1 Monitoring of site excavation activities shall occur within 30 feet of P-43-00479 and P-43-000561, as determined by a qualified professional archaeologist 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 Director of Planning 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 Director of Planning, 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 Director of Planning. 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 Director of Planning.

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

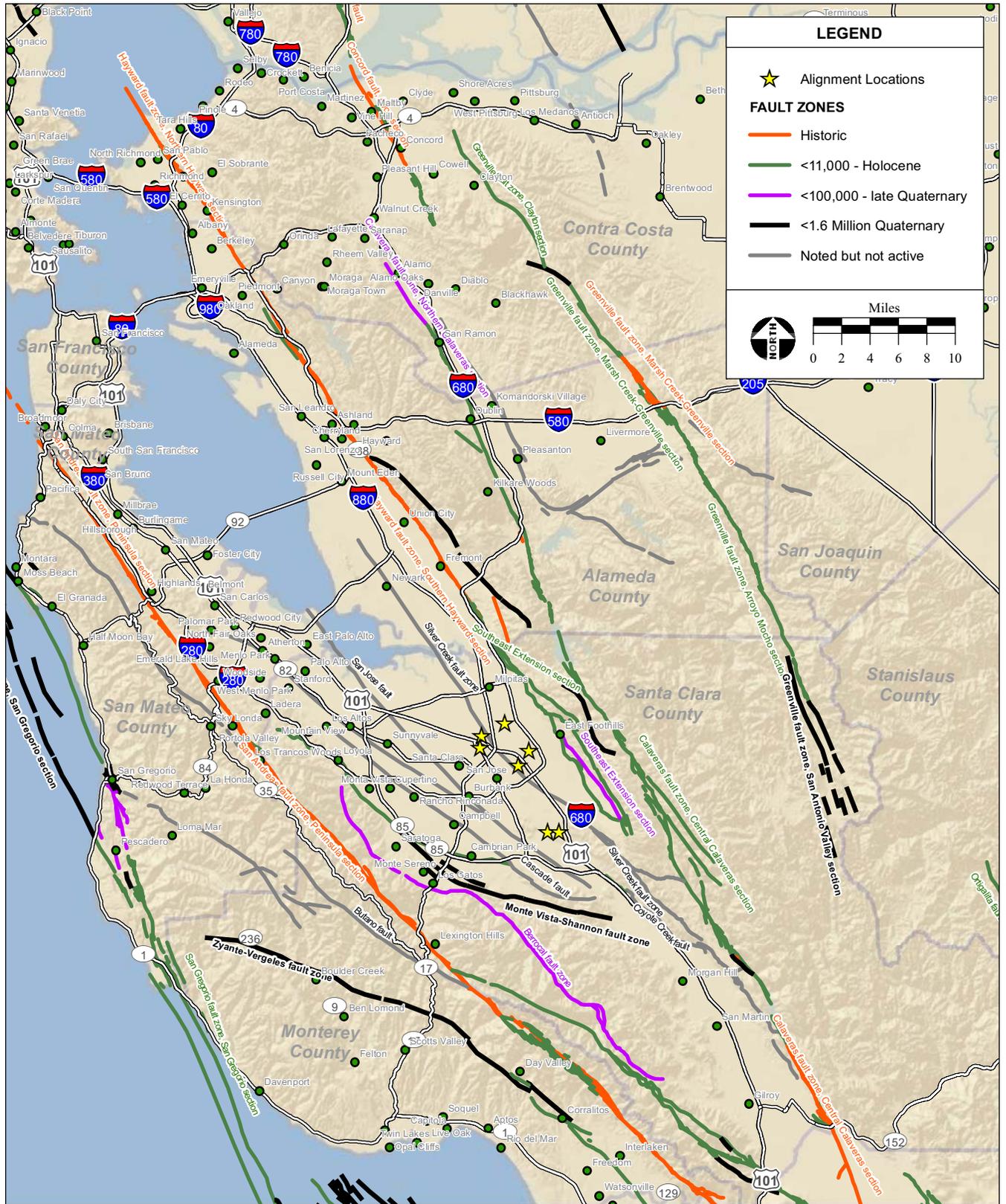
As described above, soils in the Santa Clara Valley are naturally derived from alluvial sources. In developed areas, soils may also be derived from man-made fill imported from various sources. These imported soils may have more favorable characteristics for construction, including better drainage, than 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 3-3**). 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 3-3**, the pre-Quaternary (inactive) traces of the Silver Creek, San Jose, and Cascade faults cross the proposed alignments. The potential movement on these faults is considered very low (City of San José, 1992).

On February 26, 2002, the Santa Clara Board of Supervisors adopted the Santa Clara County Geologic Ordinance which required the delineation of County Geologic Hazard Zones, a map of possible faults, landslides, liquefaction, and other hazards from a compilation of sources, including the State Seismic Hazard Zones mapped under the Alquist-Priolo Act. As shown on **Figure 3-4**, none of the proposed alignments cross a Fault Rupture Hazard Zone as delineated by the County.

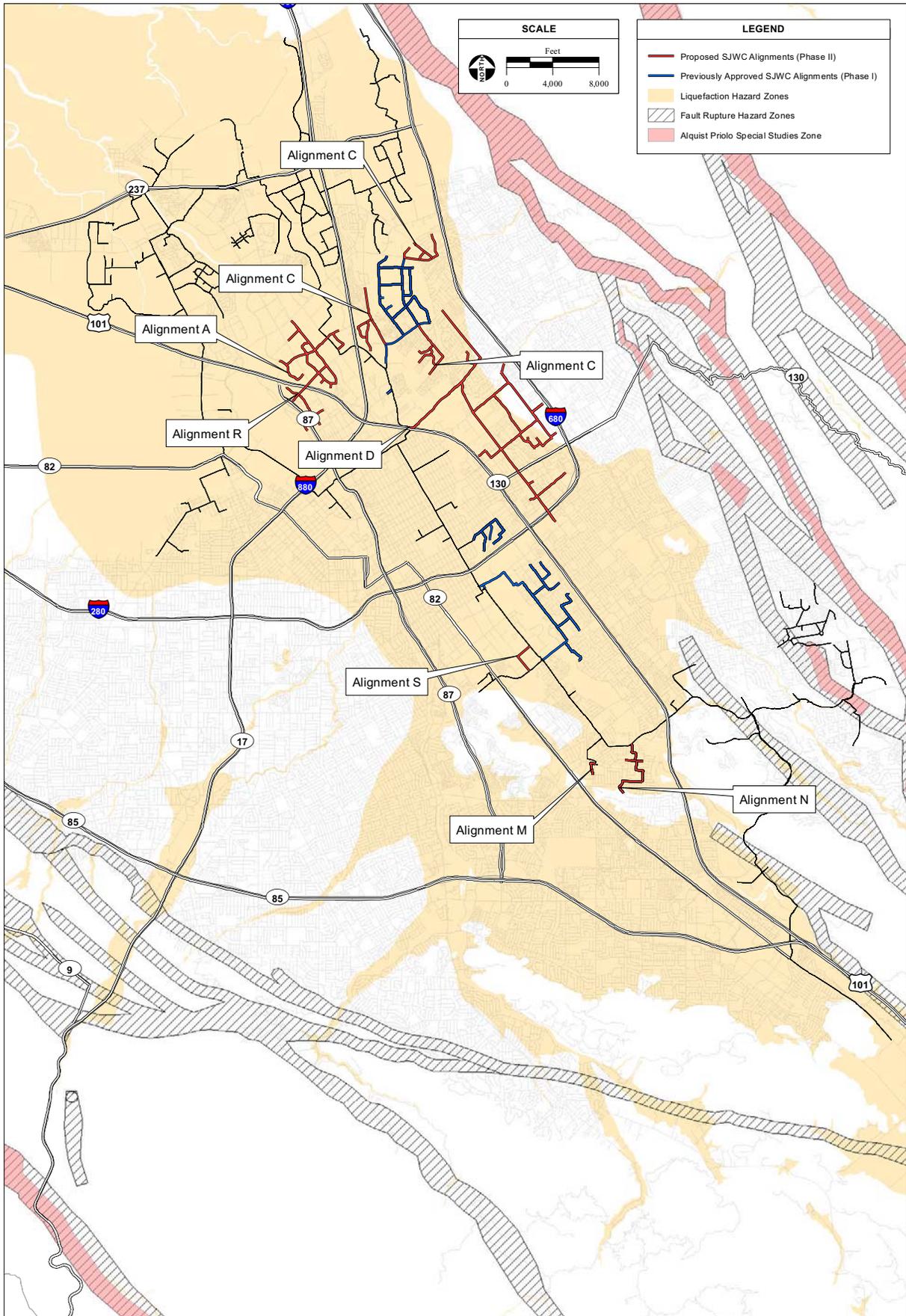
Liquefaction is the sudden loss of soil strength caused by seismic forces acting on water-saturated, granular soil, leading to a “quicksand” condition generating various types of ground failure. Estimating the potential for liquefaction must account for soil types, soil density, and groundwater table depth, and the duration and intensity of ground-shaking. All of the proposed alignments are located within an area delineated by the County as a potential liquefaction hazard zone (**Figure 3-4**).



SOURCE: California Geological Survey, 2009; USGS Earthquake Hazards Program, 2008; AES, 2011

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Figure 3-3
Fault Map



3.7.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>GEOLOGY & SOILS</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 4, 23
b) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 4, 23
d) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 4
e) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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. None of the alignments are located within the Alquist-Priolo special study zone (**Figure 3-3**) and Fault Rupture Hazard Zones (**Figure 3-4**); therefore, the project would not expose people or structures to risk of loss, injury, or death due to surface fault rupture. 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, fault rupture, and liquefaction on the site. The site is generally flat and, therefore, would not be subject to adverse effects associated with landslides. Conformance with the following standard measures would minimize potential impacts to proposed facilities from seismic events, including liquifaction:

- 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 Fault Rupture Hazard Zone. Special flexible materials would be used for pipelines and joints within the Fault Zone.

With adherence to the City of San Jose's standard measures listed above, the potential for impacts would be 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 3.10.2**, 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 the following standard measures required by the City:

- 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.

The standard measures described above would 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 of 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 measures described above to ensure a less than significant effect; therefore ***no cumulative impacts*** would occur.

3.7.3 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

January 2010 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 BAAQMD Board approved the current BAAQMD CEQA Guideline (Guideline) on June 2, 2010. The Guideline includes guidance on how to evaluate project-level CEQA GHG emissions from construction and operation. The Guideline does not provide a threshold for construction related GHG emissions; however, the Guideline does require project-related construction GHG emissions be quantified and disclosed. The Guideline does provide a threshold for operation of 1,100 metric tons of carbon dioxide equivalents (CO₂e) (BAAQMD, 2010).

3.8.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>Greenhouse Gas Emissions</u>	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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 11

environment?					
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 11

Questions A and B

Construction

Currently the City of San Jose does not have a Climate Action Plan; therefore, significance will be determined using the Guideline. As shown in **Table 3-3** the Proposed Project would directly generate at most 595.19 tons per year of CO₂ during construction. Under the Guideline there is no construction GHG emissions threshold. The Guideline provides 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 3.8.3** and **Section 3.4.3** would result in the achievement 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 Guideline provides 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 four vehicle trips per day, the Proposed Project would emit 2.08 tons per year of CO₂ from maintenance activities, which is less than the BAAQMD’s threshold; therefore, the project would not significantly impact the environment or conflict with an applicable GHG plan, policy, or regulation.

Water movement and treatment consumes between 15 to 20 percent of California electricity (SCVWD, 2010a). GHG emissions are indirectly attributed to electricity consumption. Additional pumping capacity will be added to the SBWR distribution system that will provide adequate capacity, pressure, and reliability for the Proposed Project. New pumping facilities would indirectly emit GHGs through electricity consumption. However, the proposed project would reduce the overall electricity consumption and GHG emissions produced by water transport by off-setting the use of potable water with recycled water. Assuming that the current water used in the project area is ground water, and 1,243 acre feet per year of ground water will be replaced by recycled water, then the total GHG emissions reduced would be 171.7 metric tons of CO₂e per year. The estimation assumes that groundwater uses 905 kilowatt hours of electricity per acre foot of water transported, recycled water uses 307 kilowatt hours per acre foot of water used, and 231 grams of CO₂e is produced per kilowatt hour of electricity used to transport water (SCVWD, 2010a). Therefore, a reduction in indirect GHG emissions would occur with the implementation of the proposed project and the overall operational GHG emissions would be -169.62 metric tons of CO₂e per year. 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 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

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 through the state environmental protection or waste management agencies.

Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) is a sub-agency of the California EPA that regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the federal 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.

Cortese List - Government Code Section 65962.5

The provisions in California Government Code § 65962.5 require the California Environmental Protection Agency (CalEPA) to compile a database listing of hazardous waste facilities and other permitted activities within their jurisdiction. This database is collectively referred to as the “Cortese list.” The sites for the list are designated by the State Water Resource Control Board, the Integrated Waste Board, and the Department of Toxic Substances Control (EDR, 2011). The Cortese list is updated quarterly. There is only one site identified on the Cortese List in the vicinity of the proposed pipeline alignments. This site is described in the database search report described below.

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. Each site may be listed in multiple databases, as the databases range from severely contaminated heritage hazardous waste sites listed on the National Priority List (NPL) to Small Quantity Generators (SQG) of hazardous materials as defined in the Resource Conservation and Recovery Act (RCRA) such as dry-cleaners. As each database lists sites for different reasons, the minimum search distance for each type of site is also different. In this case the search distance used was determined using the minimum distance as defined by the American Society Testing Material (ASTM buffer) which is guided by federal and state regulations on hazardous materials. The overview and detailed maps indicating the location of recorded hazardous materials sites are provided in **Appendix C**. The complete EDR report is available for public review at the City of San José Environmental Services Department.

3.9.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>HAZARDS & HAZARDOUS MATERIALS</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 working within the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 25, 26

3.0 Environmental Analysis

<u>HAZARDS & HAZARDOUS MATERIALS</u>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 3.10.2** 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

According to the EDR Report, there is one site identified on the Cortese list (dated January 4, 2011) in the vicinity of the proposed pipeline alignments. The Lorentz Barrel & Drum Company (LBDC) site is located at the intersection of Alma Avenue and 10th Street in San Jose, California; approximately 0.9 miles northwest of Alignment S. 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, commonly known as "Superfund" in 1989, and is also listed in fourteen other databases summarized within the EDR report. The NPL database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. 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 contaminated groundwater has been found in the shallow zone groundwater spreading northeast of the LBDC site (EPA, 2010).

Since its listing, the LBDC site has undergone 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 is currently in operation, and groundwater monitoring is being conducted (EPA, 2010).

Although there is significant solvent contamination at LBDC site, the groundwater flow direction in the areas is northerly, away from Alignment S. Therefore, there is no threat of contamination to migrate towards Alignment S (San José MEC, 2011).

The EDR report also identified numerous *potential* sources of contamination along the proposed pipeline alignments which are not eligible to be included on the Cortese list. These sites include, but are not limited to, gas stations, dry cleaners and other businesses that store/use hazardous materials. While there is no known contamination in the vicinity of these facilities (thus the reason these sites are not included on the Cortese list), there is always the possibility that unknown contaminated soils and/or groundwater may occur in the vicinity of such sites. The potential for hazardous material contamination to occur in the vicinity of a proposed pipeline alignment depends on the level and type of potential contamination, distance from the alignment, and elevation in comparison to the alignment. 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 could 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.

The following standard measure would be implemented during construction to avoid potential impacts:

- In the event that suspected hazardous materials are encountered during construction activities all work would be halted in accordance with the City of San José's standard practice 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 would be remediated and/or disposed of following applicable regulatory agency regulations and/or guidelines. All evaluation, remediation, treatment and/or disposal of hazardous waste would be supervised and documented by a qualified hazardous waste specialist. All necessary precautions shall be taken to protect the health and safety of site workers, and the applicant shall prepare and adhere to a plan for workers safety following all relevant OSHA requirements, and submit the plan to the City's Director of Planning.

With implementation of the standard measures required by the City of San José, the Proposed Project would result in a ***less-than-significant*** hazard to the public or the environment.

Questions E and F

None of the proposed alignments are located within two miles of a private airport. Alignment R is the alignment intended to serve the Norman Y. Mineta San José International Airport, and runs along the Airport Boulevard on the east side of the 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 MITIGATION MEASURES

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 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. Under Section 401 of the CWA, permits are issued in combination with permits issued by the United States 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.

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-permittee 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 these specific groundwater quality objectives outlined within the Basin Plan.

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

Constituent	Limit
Total Dissolved Solids	500 mg/l, recommended 1,000 mg/L, upper 1,500 mg/L, short term
Nitrate (NO ₃)	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 in the Coyote Watershed. 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. The project alignments will cross Coyote Creek as well as its tributary waterways Upper Penitencia Creek, Lower Silver Creek, and Miguelita Creek in several locations (**Appendix A**).

According to FEMA maps, there are several floodplains associated with Coyote, Upper Penitencia, Lower Silver, and Miguelita Creeks and the Guadalupe River within the project area. Alignments A, C, and D are within or cross the 100-year floodplain (**Figure 3-5**).

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).

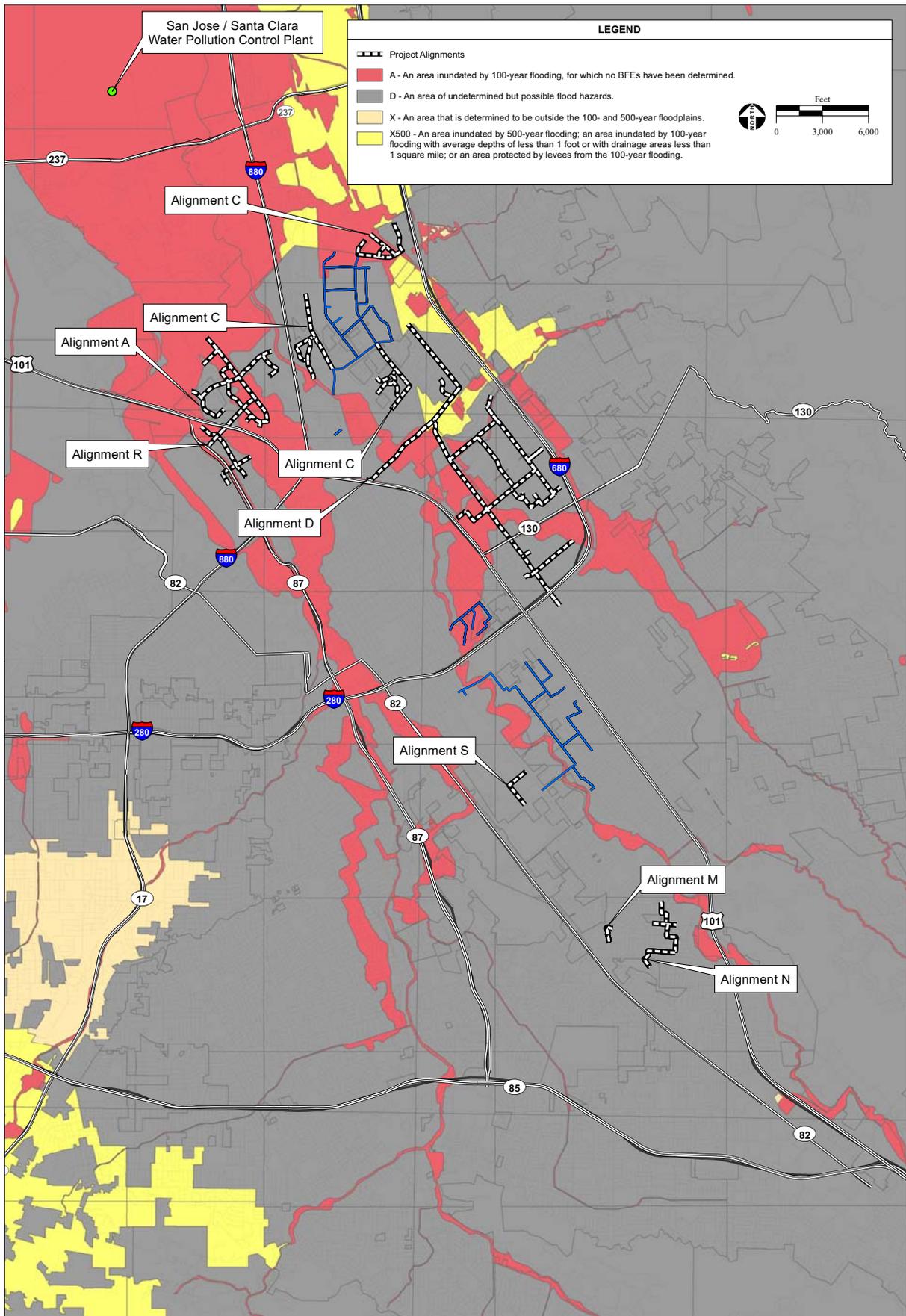
A Groundwater Vulnerability Study was conducted on the Santa Clara Valley groundwater basin for the Santa Clara Valley Water District to aid in the identification of sensitive groundwater resources and the establishment of protective measures (Todd Engineers & Kennedy/Jenks, 2009). The Shallow Aquifer (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. 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**.

TABLE 3-8
AQUIFER SENSITIVITY AT THE PROJECT ALIGNMENTS

Alignment	Land Use	Capacity (AFY)	Sensitivity Score
A	Landscape Irrigation	241	2 to 5
C	Landscape Irrigation	610	2 to 6
D	Various	887	3 to 9
M	--	--	--
N	--	--	--
R	Mineta Airport	99	2 to 3
S	--	--	--

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 sites within the SBWR service area, which were monitored prior to and during recycled water use from 1997-2009. Monitoring under the GMMP is conducted annually, and provides an important 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*, to evaluate the GMMP analytical results and determine if there is evidence of impacts to groundwater quality from recycled water irrigation. The report states:

“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).

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

<u>HYDROLOGY & WATER QUALITY</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12, 19, 20, 21
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12, 19, 20, 21
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 7, 12
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 7, 12

3.0 Environmental Analysis

<u>HYDROLOGY & WATER QUALITY</u>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 7, 12
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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.

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

- Prior to the commencement of any clearing, grading or excavation activities, the applicant 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.

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 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 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 while recycled water irrigation can lead to impacts to groundwater, additional factors are affecting the groundwater in the well locations, leading to variable trends in contamination levels between locations and between aquifers (Todd Engineers, 2009).

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. The GMMP may be revised to include additional well locations and/or monitoring requirements as needed for the City to continue to fully monitor the impact recycled water use in new areas that would result from the proposed project.

Implementation of the standard measure above would require that the potential groundwater impacts of the proposed recycled water use areas under the Proposed Project be monitored 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 standard measures above 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 MITIGATION MEASURES

None Required.

3.11 LAND USE & PLANNING

3.11.1 SETTING

The Proposed Project alignments would occur within existing public rights of way or public easements. Land uses adjacent to the proposed alignments include industrial, commercial, residential, parkland and open space, and a variety of overlays for transit-oriented development, planned community specific plans, and mixed uses. The land use designations as defined in the City’s General Plan surrounding these easements are shown in **Figure 3-6**.

3.11.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

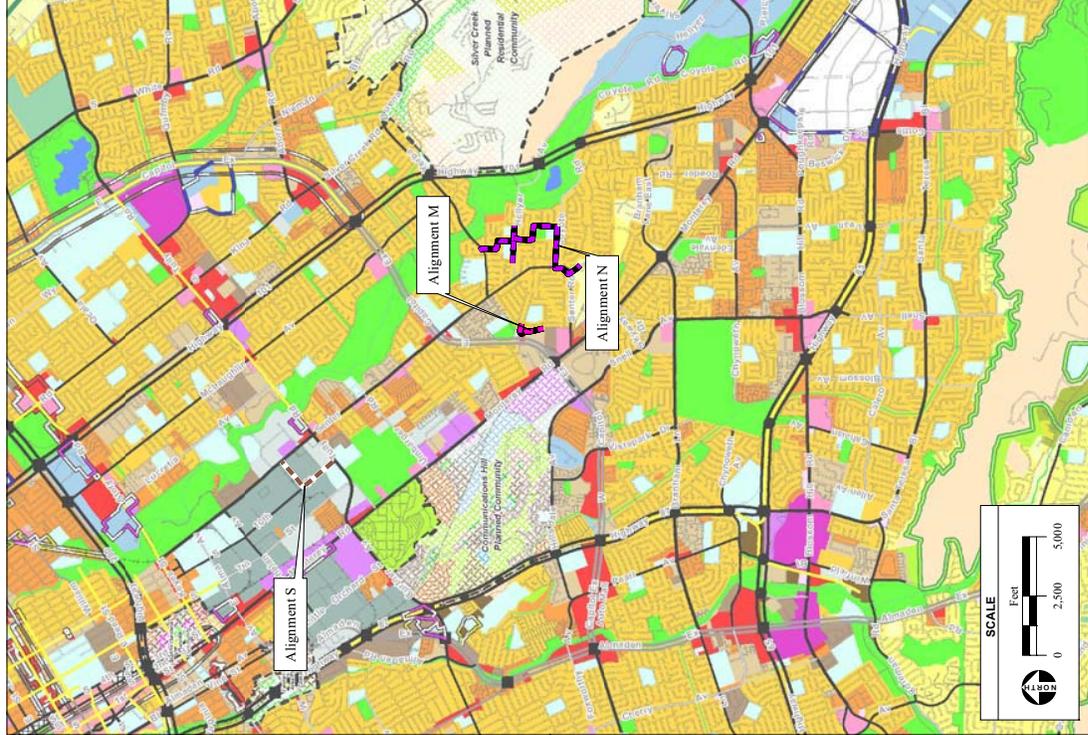
<u>LAND USE & PLANNING</u>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2

Questions A and B

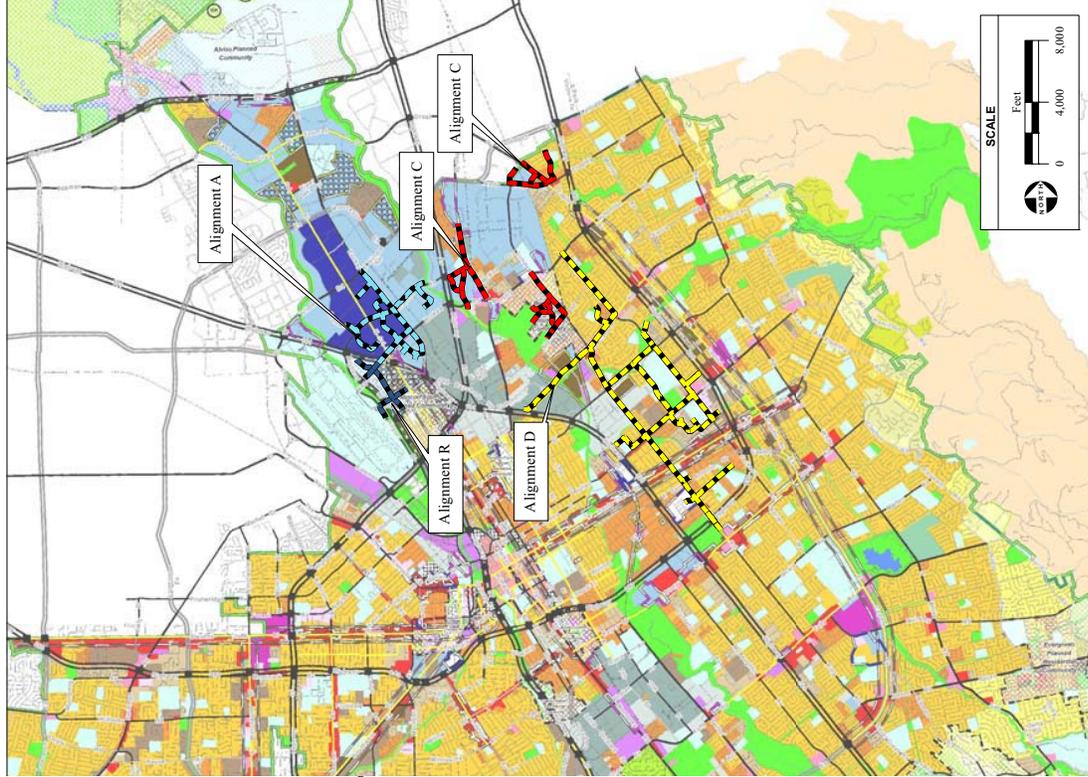
Projects that have the potential to physically divide an established community include new freeways and highways, major arterials streets, and railroad lines. The seven proposed alignments would occur within existing public right of way easements and when completed would be entirely below ground; therefore, they would not physically divide an established community. Projects that have the potential to conflict with land use plans and policies are typically development projects that involve buildings or structures. Since the pipelines would be completed underground, no conflicts with future land use would occur. In addition, roadways are public property and are generally not given a land use designation or zoning other than public use, such as utility corridors. The Proposed Project would not alter any existing land uses and not conflict with the existing zoning and General Plan designations. **No impact** would occur.

CITY OF SAN JOSE LAND USE DESIGNATIONS

	Bural Residential (R2 DUAC)		Industrial Park
	Estate Residential (ER DUAC)		Subdivision Office/Research & Development
	Very Low Density Residential (VLD DUAC)		Research/Development
	Low Density Residential (LD DUAC)		Campus Industrial
	Medium Low Density Residential (MLD DUAC)		Light Industrial
	Medium Density Residential (MD DUAC)		Heavy Industrial
	High Density Residential (HD DUAC)		Combined Industrial/Commercial
	Transit Corridor Residential (TCR DUAC)		Industrial Core Area
	Residential Support for the Core Area (SR DUAC)		Public/Quasi Public
	Transit Employment Residential (TER DUAC)		Neighborhood Business District
	Office		Transit-Oriented Development Corridor
	Neighborhood Community Commercial		Public Park and Open Space
	Regional Commercial		Private Open Space
	General Commercial		Private Recreation
	Core Area		Non-Urban Hillside
	Transit Corridor Commercial		Urban Hillside
	Combined Residential/Commercial		Agriculture
	Planned Community -		Urban Reserve
	Airport Approach Zone		Coyote Creek
	Solid Waste Disposal Site		Mixed Use Overlay
	Candidate Solid Waste Disposal Site		Mixed Industrial Overlay
	Contingent Designation		Floating Park
	Urban Service Area Boundary		Light Rail Station
	Urban Growth Area/Urban Growth Boundary (Coterminous)		Transit Mall
	State Transportation Corridor		Area of Historic Sensitivity
	Expressway		Pedestrian Corridor
	Interchange		Aerial (115-130 ft.)
	Separation		Aerial (80-106 ft.)
			Major Collector (66-80 ft.)



Alignment M
Alignment N
Alignment S



Alignment A
Alignment C
Alignment D
Alignment R
Alignment K

SOURCE: City of San Jose General Plan, 2009; HyundScience Engineers, 2010; ESRI Server Data, 2010; AEX Aerial Photograph, 6/15/2006; AES, 2011

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City of San Jose General Plan Land Use Designations

Figure 3-6

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 MITIGATION MEASURES

None required.

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. Communications Hill is the site of the Azevedo Quarry, an aggregate mine currently undergoing reclamation.

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.

3.12.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>MINERAL RESOURCES</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 18

Questions A and B

All of the proposed alignments are outside of classified Mineral Resource Zones. **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 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 (Ldn) 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 decibels (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 Noise 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 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. The following is a brief description of the sensitive noise receptors for each alignment:

Alignment A

Alignment A at Hartog Drive is located approximately 525 feet northwest of the Orchard Elementary School and Standout Chinese School.

Alignment C

Alignment C is adjacent to residential units along Lakewood Drive, Townsend Avenue, Townsend Park Circle, Sierra Road, and Oakland Road between Fox Lane and North Front Way. Alignment C is adjacent to Orchard School District along Fox Lane and Oakland Road and Northwood Elementary School along Lakewood Drive.

Alignment D

The entire proposed pipeline under alignment D is adjacent to residential units. Alignment D is also adjacent to Silver Creek High School Reception, Independent High School and Independent Adult School, Tripp School, Anne Darling Elementary School, Alta Vista School, KIPP San Jose Collegiate School, Pegasus High School, San Antonio Pre-School, Lee Matheson Middle School, and Cesar Chavez School. The following schools are within 1,000 feet of Alignment D: Vinci Park Elementary School, San Antonio Elementary School, and Ace Charter School. The Regional Medical Center – San Jose Gomez Mabel A, which is located at the corner of Mckee Road and North Jackson Avenue is adjacent to the proposed pipeline under Alignment D.

Alignment M

The proposed pipeline is adjacent to residential units along all roads in Alignment M and is adjacent to Seven Trees Elementary School.

Alignment N

The proposed pipeline is adjacent to residential units along all roads in Alignment N and is adjacent to Christopher Elementary School and G.W. Heller Elementary School and within 1,000 feet of Sylvandale Junior High: Intermediate.

Alignment R

Residential units are located at the southern portion of the pipeline along Technology Drive. Alignment R is adjacent to Norman Y. Mineta San José International Airport and is within 1,000 feet of Bachrodt Elementary School, Child Development Center, Pasitos School, Golden Gate University, and China Hospital.

Alignment S

Alignment S is located in a commercial and industrial area with no sensitive noise receptors within 1,000 feet of the pipeline.

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

<u>NOISE</u>	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 2, 10
b) Exposure of persons to or generation of excessive groundborne vibration noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 2, 10
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1, 2, 10
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 (up to 6 months for each alignment), the project would not result in significant short-term construction related noise impacts. The following standard measures would apply to the Proposed Project:

- 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.

Mitigation measures recommended in **Section 3.13.3** would avoid or further reduce noise impacts. The potential for impacts associated with construction noise is considered ***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 two 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 above 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, periodic, or permanent increase in the ambient noise level. 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 including 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 listed above, impacts associated with vibration noise would be reduced or avoided, resulting in a ***less than significant*** impact.

Questions E and F

Alignments A and R are within the sphere of influence of the Norman Y. Mineta San José International Airport. Temporary noise resulting from construction and maintenance activities together with airport noise 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 above. 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 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 where 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 AND HOUSING

3.14.1 SETTING

The City of San José is located within Santa Clara County and had an estimated population of approximately 1,023,083 citizens (California Department of Finance, 2010). The project alignments are located within areas of existing urban buildout within the City limits, primarily within residential and commercial districts.

3.14.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>POPULATION AND HOUSING</u>	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Question A

The Proposed Project entails the construction of several pipelines 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 any existing housing or people. **No impact** would occur.

Cumulative Impacts

Cumulative growth in the region has been addressed in the General Plan for 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 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 project area. The SJFD serves an area covering 206 square miles with an estimated population of 1,023,083 citizens (California Department of Finance, 2010). The SJFD staffs 35 stations throughout the City of San José. Response statistics show that during the 2007-2008 fiscal year, the SJFD responded to a total of 52,387 citywide calls (SJFD, 2010).

Law Enforcement

The City of San José Police Department (SJPD), headquartered at 201 W. Mission St, provides law enforcement and safety services to the project area. The most recent statistics from SJPD report that approximately 1,343 sworn officers are employed by the SJPD (SJPD, 2010). Alignments A, C, and portions of Alignment R are located in the Central Division. The Central Division Community Policing Center is located at 1060 Taylor Street, north of the proposed alignments. The remainder of Alignment R is located in the Airport Division. Alignment S is located in the Western Division. The Western Division Community Policing Center is located at 3707 Williams Road, west of the proposed alignments. Alignments M and N are located in the Southern Division. The Southern Division Community Policing Center is located at the Oakridge Mall on 947 Blossom Hill Road.

Schools

The San José Unified School District, East Side Union High School District, the Campbell Union High School District, and 11 elementary school districts provide 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. The East Side Union School District consists of 20 individual schools, with an enrollment of 26,915 in 2009. The Campbell Union High School District consists of 7 individual schools, with an enrollment of 7,791 in 2009 (CDOE, 2010). No schools are located along Alignments A, C, or S.

Alignment D

Alignment D runs through the Berryessa Union and Alum Rock School Districts. Independence High School, Anne Darling Elementary School, Cesar Chavez School, and Ace Charter School are proposed connections for the recycled water pipeline along Alignment D.

Alignment M

Alignment M runs through the Franklin McKinley School District. Seven Trees Elementary School is an existing recycled water customer near Alignment M.

Alignment N

Alignment N runs through the Franklin McKinley and Oak Grove School Districts. Hellyer Elementary School and Christopher Elementary School are proposed connections for the recycled water pipeline along Alignment N. Valley Christian High School is an optional connection.

Alignment R

Alignment R runs through the Orchard Elementary School District. Bachrodt Elementary School and Child Development Center is a proposed connection for Alignment R.

3.15.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>PUBLIC SERVICES</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 15
b) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 15
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Questions A – E

Construction

Pipeline installation could potentially cause impacts to SJFD and SJPD. Both City departments require that 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 detours are designated to avoid impacts to school service and area parks.

The following standard measures would apply to the Proposed Project to reduce any potential impacts to services due to temporary road closures during construction :

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

After the standard measures listed above, potential impacts associated with construction of the Proposed Project would be considered ***less than significant***.

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.

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 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. Alignments A, M, R, and S do not have connections to parks or recreational facilities, and no parks are adjacent to these alignments.

Alignment C

Townsend Park is a City park adjacent to Alignment C with a proposed connection for the use of recycled water for landscape irrigation. San Jose Municipal Golf Course is an existing recycled water customer adjacent to Alignment C.

Alignment D

Overfelt Gardens Park, Vinci Park, Plata Arroyo Park, and Mayfair Park are proposed connections for the use of recycled water for landscape irrigation along Alignment D. Overfelt Gardens Park is home to the Chinese Cultural Gardens; Mayfair Park includes a community garden inside park boundaries.

Alignment N

Melody Park is a proposed connection for the use of recycled water for landscape irrigation along alignment N.

3.16.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>RECREATION</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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. ***Therefore, no direct or cumulative impacts*** to recreational facilities would occur.

3.16.3 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. 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 (LOS) 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 LOS needs to provide vehicular related improvements aimed at maintaining the minimum LOS (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 identifies the airport's sphere of influence. If a project is identified as within the sphere of influence then the project may have an impact on air traffic. Alignments A and R are within the sphere of the influence of Mineta 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 Valley Transportation Authority Congestion Management Program (CMP) (Santa Clara County, 2004) was adopted May 7, 1998 and updated March 29, 2004. The CMP requires a minimum LOS of 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 major collectors and local streets. Alignment A would be largely constructed within Zanker Road and Charcot Avenue and connecting minor arterials largely serving residences and two schools. Alignment C would be largely constructed within Oakland Road and Lundy Avenue and connecting minor arterials largely serving residences and two schools. Alignment D would be largely constructed within Berryessa and Kings Roads and connecting minor arterials largely serving residences with some commercial uses, 10 schools, and a hospital. Alignment M would be constructed within Seven Trees Boulevard and El Cajon Drive and would largely serve residential land use and one school. Alignment N would be largely constructed within Hellyer Avenue and Coyote Road and connecting minor arterials largely serving residences and two schools. Alignment R would be largely

constructed within Technology Drive and Skyport Drive Road and connecting minor arterials serving commercial land uses and the Norman Y. Mineta San Jose International Airport. Alignment S would be constructed within 10th Street and Burke Street, which serve commercial and industrial uses.

3.17.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

<u>TRANSPORTATION/TRAFFIC</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 occasional 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 CMP; therefore, a ***less-than-significant*** impact would occur.

Questions C

Alignments A and R are within the sphere of influence of the Norman Y. Mineta San José International Airport. Construction and operation of the proposed pipeline would not alter air traffic patterns, increase air traffic levels, or result in 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** would occur. These closures have the potential to impede emergency vehicles. Implementation of the mitigation measures in **Section 3.17.3** 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 10 vehicles per week, 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 3.17.3** 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 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 contracts with Garden City Sanitation, California Waste Solutions, GreenTeam of San José, and GreenWaste Recovery. Service is provided for through City fees to residential, commercial, and industrial uses surrounding the proposed project's 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

<u>UTILITIES & SERVICE SYSTEMS</u>	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

3.0 Environmental Analysis

facilities, the construction of which could cause significant environmental effects?					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
g) Comply with federal, state, and local statutes and regulations related to solid waste.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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. 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. Therefore, the Proposed Project's cumulative contribution to impacts to utilities and service systems would be ***less than significant with mitigation***.

3.18.3 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

<u>MANDATORY FINDINGS OF SIGNIFICANCE</u>	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 plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-30
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-30
c) Does the project have environment effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-30

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. However, with the above noted mitigation, 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 MITIGATION MEASURES

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

REFERENCES

1. Professional judgment and expertise of the environmental specialist preparing this assessment, based upon a review of the site and surrounding conditions, as well as a review of the project plans.
2. City of San José 2020 General Plan (City of San José, 2008)
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
14. City of San José Title 20 Zoning Ordinance (City of San José, 2009)
15. San José Fire Department and San José Police Department (SJFD, 2010; SJPD, 2010)
16. San José Environmental Services Department (SJESD, 2010)
17. San José Water Company, Recycled Water Master plan, March 2009 (HSE, 2009)
18. California Geological Survey (CGS, 2009)
19. Santa Clara Valley Water District, South Bay Advanced Recycled Water Treatment Facility, Draft Environmental Assessment / Initial Study – Mitigated Negative Declaration, December 2009 (SCVWD, 2009)
20. City of San José, South Bay Water Recycling Program, Initial Study / Environmental Assessment, May 2000. (City of San José, 2000).
21. California State Water Resources Control Board, General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water Initial Study, July 2009. (SWRCB, 2009)
22. City of San José, San José Nonpotable Reclamation Project, Final Environmental Impact Report, November 1992. (City of San José, 1992)
23. Santa Clara County, Geologic Hazard Zones map, as revised in 2006. (Santa Clara County, 2006)
24. Department of Toxic Substances Control, Envirostor Hazardous Waste and Substances Site List. 2007. (Department of Toxic Substances Control, 2007)
25. Santa Clara Valley Water District Ordinances. (SCVWD, 2010)
26. San José Department of Public Works. (City of San José, 2010)
27. Santa Clara County, 2004. Santa Clara Congestion Management Plan, 2004 (Santa Clara County, 2004)
28. Assembly Bill (AB) 939 -California Integrated Waste Management Act.
29. Records search at Northwest Information Center (NWIC) of the California Historical Resources Information System by NWIC staff, on April 21, 2011 (NWIC file 10-0619) (NWIC, 2011)

3.0 Environmental Analysis

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

John Davidson

Printed Name

7/6/2011

Date

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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Laurel Prevetti, Deputy Director of Planning

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Project Manager: Ryan Lee

Deputy Project Manager: Anna Elzeftawy – Water Quality, Geology, and Recreation

Technical Staff: Bibiana Alvarez - Agricultural Resources and Land Use
David Sawyer – Aesthetics, Population, Public Services, and Utilities and Service Systems

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Erin Quinn – Air Quality, Traffic, Noise

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Dana Hirschberg – Graphics

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HYDROSCIENCE ENGINEERS – PROJECT ENGINEERS

Curtis Lam, Principal

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SECTION 6.0

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APPENDICES
