THE CITY OF PLEASANTON

Administrative Draft Initial Study/Mitigated Negative Declaration and Environmental Assessment/Finding of No Significant Impact

Recycled Water Project

June 2014

SMB ENVIRONMENTAL

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List of Abbreviations

ABWF	average base wastewater flow
BAAQMD	Bay Area Air Quality Management District
Basin	Bay Area Air Basin
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal EPA	California Environmental Protection Agency
Cal/OSHA	State of California Occupational Safety and Health Administration's
CALTRANS	California Department of Transportation
CAP	Clean Air Plan
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society's
CWA	Federal Clean Water Act
dBA	Outdoor Ambient Sound levels
DPM	Diesel particulate matter
DTSC	Department of Toxics Substances Control
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
gpd	gallons per day
gpm	gallons per minute
HCP	Habitat Conservation Plan

I/I	infiltration/inflow
ISA	International Society of Arboriculture Standards
IS	Initial Study
Leq	Equivalent Sound Level
LU	Landscape Unit
mgd	million gallons per day
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone 4
NAAQS	National Ambient Air Quality Standards
NBWRP	North Bay Water Recycling Program
ND	Negative Declaration
NEPA	National Environmental Quality Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NMFS	National Marine Fisheries Service
NOx	Nitrous Oxides
NPDES	National Pollutant Discharge Elimination System
OHWM	Ordinary High Water Mark
PWWF	Peak wet weather flow
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SR	State Route
SRF	State Revolving Funds
SWPPP	Stormwater Pollution Prevention Permit
SWRCB	State Water Resources Control Board
TAZ	Traffic Analysis Zones
TSP	Total Suspended Particles
USACE	United States Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
WWTP	Wastewater Treatment Plant

Chapter 1 Introduction

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) and an Environmental Assessment/Finding of No Significant Impact (EA/FONSI) that addresses the potential environmental impacts of the City of Pleasanton's (City) proposed Recycled Water Project (Proposed Project/Action and/or Preferred Alternative) as defined in the City's *Recycled Water Project Feasibility Study*. The purpose of the Proposed Project/Action is to augment the existing surface and groundwater supplies within the City for the irrigation of landscape within the City.

Many successful recycled water programs receive funding assistance in the form of low-interest loans and in some instances, grants are available to reduce the financial burden of initial capital and implementation costs. Funding programs are offered at times through the United States Department of Interior, Bureau of Reclamation (USBR), United States Department of Agriculture (USDA), the California State Water Resources Control Board (State Board), and/or the California Department of Water Resources (DWR). In addition, local and regional programs, statewide, occasionally offer additional incentives directed at actual deliveries to promote recycling as an offset to potable water demand. It is anticipated that the City will pursue federal funding under the USBR's Public Law 102-575, Title XVI Water Reclamation and Reuse Program (Title XVI). In addition, the City may also seek funds from the State Revolving Fund (SRF) Loan Program that is administered by the State Board on behalf of the U.S. Environmental Protection Agency (USEPA). As a result, the Proposed Project/Action would be subject to the California Environmental Quality Act (CEQA) at a minimum where the City would be the CEQA Lead Agency to ensure that all of the applicable state environmental regulations are adhered to. If Title XVI funds are used, then USBR would be the lead agency under the National Environmental Policy Act (NEPA) to ensure that all federal environmental regulations are adhered to. Under the State Board's SRF Program, the State Board is responsible on behalf of the USEPA for ensuring that the project adheres to federal environmental regulations, including the Endangered Species Act, the National Historic Preservation Act (NHPA) and the General Conformity Rule for the Clean Air Act (CAA), among others. The USEPA has chosen to use the CEQA as the compliance base for California's SRF Loan Program, in addition to compliance with ESA, NHPA, and CAA. Collectively, the State Board calls these requirements CEQA-Plus. Additional federal regulations may also apply.

The purpose of this document is to provide project-level CEQA and NEPA environmental analysis of the City's Proposed Project/Action to augment the existing surface and groundwater supplies within the City for the irrigation of landscape within the City. What follows is a review and analysis of the major state and federal environmental issues that may be a factor as a result in the construction and/or operation of the Proposed Project/Action. For this analysis, we have reviewed prior and relevant existing environmental documentation and have used a modified CEQA environmental checklist to assess the potential impacts on endangered/threatened species, public health or safety, natural resources, regulated waters, and cultural resources, among others to include and address specific issues associated with CEQA as well as NEPA. Based on our experience with evaluating these kinds of recycled water projects in California, most of the potential environmental issues appear to be short-term/temporary impacts due to construction activities and which can be avoided and/or mitigated to less-than-significant levels. For any potentially significant impact(s) identified, we have identified appropriate mitigation measures and strategies to attempt to avoid and/or reduce those impacts to less-than-significant levels. The information developed is designed to assist the City, USBR and/or the State Board determine what the major potential environmental impacts are to comply with CEQA, NEPA and/or CEQA-plus requirements.

1.1 Project Location and Background

The City of Pleasanton is located in Alameda County approximately 35 miles southeast of San Francisco, situated at the junction of I-580 and I-680. As shown on Figure 1, the City's water service area encompasses an area of approximately 22 square miles; servicing city residents, commercial customers, and approximately 250 customers in unincorporated Alameda County along Kilkare Road just north of the town of Sunol.

As of 2010, Pleasanton supports a residential population of 69,300. By 2030 Pleasanton's population is projected to grow by another 19 percent to 82,300. The residential sector accounts for the City's largest water consuming sector (61percent), followed by landscape irrigation (27 percent), commercial (12 percent), and lastly industrial sector (<1percent). The importance of efficient and purposeful use of water in California has come under legislative focus through the passage of the Water Conservation Bill of 2009. Under this law, Pleasanton has set the goal of achieving a twenty percent reduction in water consumption by 2020. This equates to a "target" of 195 gallons per capita per day (gpcd), a twenty percent reduction from a baseline of 244 gpcd.

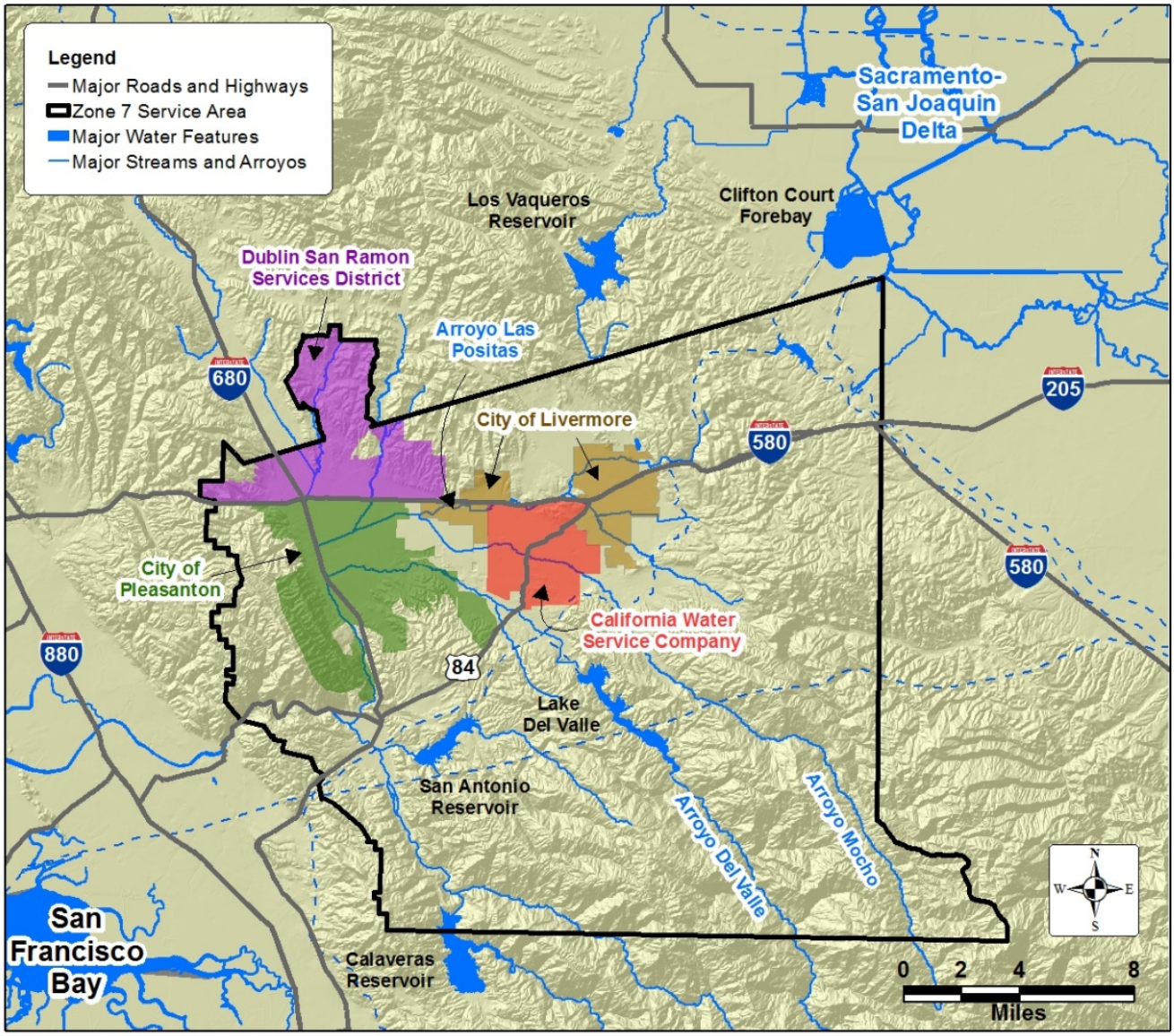
Two sources of water supply Pleasanton's service area: 1) local groundwater from three wells owned and operated by the City (approximately 20% of the annual demand), and 2) the purchase of water from Zone 7 (approximately 80% of the annual demand). According to the City's agreement with Zone 7, Pleasanton pumps a maximum of 3,500 acre-feet per year (afy) from its wells, with a carryover of 700 Acre Feet of unused pumping quota from one year to another.

The City's distribution system currently consists of 22 storage reservoirs with a maximum capacity of 37 million gallons. One of the City's existing storage reservoirs, Tassajara Reservoir, is being considered for conversion to a recycled water storage facility for this Proposed Project/Action. It also includes 14 pressure zones, 14 pump stations, 2,500 fire hydrants and 306 miles of pipelines. This system services approximately 21,700 connections; of which 90 percent are residential customers, 5.5 percent are commercial/institutional customers, 4.5 percent are irrigation customers (for commercial and multi-family residential landscape meters), and less than 1percent are industrial customers.

1.2 Goal and Objective and Purpose and Need

The purpose of the Proposed Project/Action is to construct and operate a new recycled water system to replace/augment existing irrigation supplies in the City's service area. The development of recycled water service within the City will lessen the demand for Zone 7 Water Agency (Zone 7) potable water supplies and help the City meet the State of California's Water Conservation Act of 2009, which requires a 20 percent reduction in urban per capita water use by the year 2020. Furthermore, the addition of recycled water to the City's water supply portfolio will increase its water system's reliability since recycled water is a local supply within the City's control and is drought-resistant.

Figure 1
General Location Map



1.3 Document Organization and Review Process

This document is intended to provide a preliminary environmental investigation of the Proposed Project/Action to determine if it may have a significant adverse impact on the environment. This document is organized into the following chapters:

- Chapter 1, Introduction. Chapter 1 describes the background, goals and objectives of the Proposed Project/Action, and document contents.
- Chapter 2, Project Description and Alternatives. Chapter 2 describes the major components of the Proposed Project/Action and describes the No Project/Action Alternative.

- Chapter 3, Environmental Review and Consequences. Chapter 3 discusses the potential environmental impacts associated with the construction and operation of the Proposed Project/Action. Each resource section of a modified CEQA checklist is followed by a discussion of each potential impact listed in that section. It also presents corresponding mitigation measures proposed to avoid or reduce potentially significant impacts to a less-than-significant level. This checklist has been modified to include additional topics to meet the requirements of NEPA.
- Chapter 4, Chapter 4 provides the proposed action as a result of this IS/MND and EA/FONSI.
- Chapter 5, Bibliography. Chapter 5 provides a list of reference materials and persons consulted during the preparation of the environmental issues and constraints evaluation.

This Document will be available for a 30-day public review period, during which written comments may be submitted to the following address:

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Pleasanton, CA 94566
925-931-5513
rdicandia@cityofpleasantonca.gov

Responses to written comments received by the end of the 30-day public review period will be prepared and included in the final document to be considered by the City, USBR, and/or the State Board prior to taking any discretionary decision/action on the Proposed Project/Action.

Chapter 2 Proposed Project Description and Alternatives

This chapter provides a detailed description of Proposed Project/Action including a discussion of the construction considerations, compliance with the California Code of Regulations (CCR) Title 22 and State Board Requirements, operational plans, and potential approvals and permits that may be necessary. In addition, this section also describes the No Project/Action Alternative.

2.1 Proposed Project/Action Description

As shown in Figure 2, the Proposed Project/Action includes the upgrade and expansion of the Dublin San Ramon Services District's (DSRSD) existing wastewater treatment plant (WWTP) to provide a recycled water supply of approximately 2,500 acre-feet per year (afy) to meet recycled water demand in the City's service area and offset deliveries from the City's groundwater supplies and water supply purchases from Zone 7. All of the WWTP plant upgrades will be included within DSRSD's existing WWTP location and within existing facilities that were previously designed, sized, and constructed for this potential upgrade and expansion. All of the recycled water will be produced by the City of Livermore Waste Water Treatment Facility and/or the Dublin San Ramon Services District/East Bay Municipal District (DERWA) Recycled Water Treatment Facility. The Proposed Project/Action also includes the construction of up to approximately 22-miles (115,200 linear feet) of pipeline ranging in diameter from 6-inches to 18-inches. In addition, the Proposed Project/Action will also include approximately 3.2 miles (16,500feet) of existing pipeline that will be repurposed from abandoned or existing potable pipelines. Table 1 provides a summary of the pipeline segments by construction phase. The pipeline facilities would be located primarily in existing roadways. In addition, the Proposed Project/Action will also include the conversion of the existing 8 million gallon (MG) Tassajara Reservoir to a recycled water storage facility.

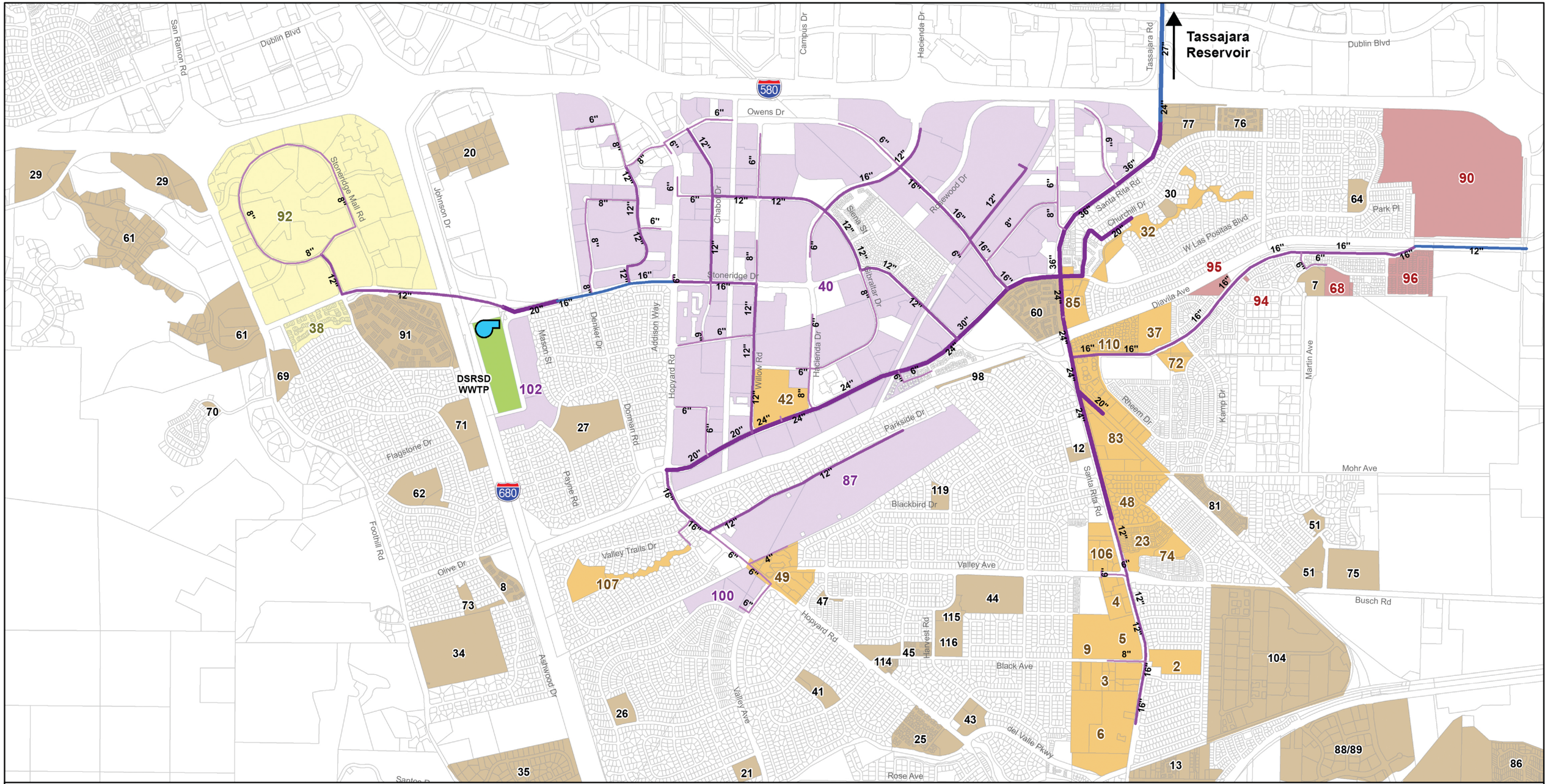
2.2 Construction Considerations

Construction of the Proposed Project/Action facilities is expected to begin in the summer of 2014 and will likely continue into the summer of 2019. Construction work will typically be done within normal working hours, weekdays between the hours of 8 a.m. and 8 p.m., and possibly on Saturdays between the hours of 10 a.m. and 6 p.m. The Proposed Project/Action would be constructed primarily within existing roadways and any damages occurring during construction will be returned to the pre-construction condition or better. Detailed below is a summary of the construction techniques and activities.

- The upgrades to the tertiary filtration system would involve installing parallel filter cells in existing facilities within DSRSD's existing WWTP (see DERWA EIR for Recycled Water).

- Each customer location will require some level of work due to possible meter location changes and pressure differences affecting overspray requirements. On-site plumbing changes may be required to comply with cross connection requirements.

- The majority of the pipelines would be installed in existing roadways using conventional cut and cover construction techniques and installing pipe in open trenches. It is assumed that up to a 50-foot wide construction corridor would be used to help maximize the efficiency during construction. However, in most places a 25-foot construction corridor could be realized, especially for the smaller diameter pipelines. It is anticipated that excavation would range from 2-5 feet wide and would typically be no more than 6-feet deep.



Legend

DSRSD Facilities

- WWTP
- Recycled Water Pump Station

Proposed Recycled Water Pipelines

- 20" and Larger
- 12" - 16"
- 8" and Smaller

Existing Recycled Water Pipelines

- 20" and Larger
- 12" - 16"

- Parcels

Potential Users

- Served by Phase 1 Alignment
- Served by Phase 2 Alignment
- East Option – Staples Ranch area
- West Option – Stoneridge mall area
- Potential Customers not Considered Feasible at this time

0 1,500 3,000 Feet

Figure 2
Proposed Project/Action Facilities
Recycled Water Project
City of Pleasanton

- Any local creek or drainage crossings would be constructed using trenchless techniques and will be done in the dry season and will not occur during inclement weather or between October 15 and April 1.

- Dewatering of the pipeline as a result of hydrostatic testing during construction as well as any dewatering as a result of operations and maintenance activities shall be discharged to land and/or the sanitary sewer system and not into any creeks, drainages, or waterways and shall require prior approval from the San Francisco Bay Regional Water Quality Control Board.

Table 1: Proposed Project/Action Pipeline Segments by Phase

Phase	Diameter (in.)	Length (ft.)	Length (miles)
Phase 1A – Hacienda Area			
New Pipeline	6-16	49,100	9.3
Existing – Santa Rita Road	24	4,000	0.8
Existing – Tassajara Road	27	8,200	1.6
Existing – Stoneridge Drive	16	2,200	0.4
Subtotal		**63,500**	**12.1**
Phase 1B – Hacienda Area			
New Pipeline	4-16	20,700	3.9
New Pipeline (Santa Rita Road)	30	4,000	0.8
Subtotal		**24,700**	**4.7**
Phase 2 – Remaining Feasible Customers			
New Pipeline	4-16	18,800	3.6
Subtotal		**18,800**	**3.6**
West Option – Stoneridge Mall Area			
New Pipeline	4-16	12,100	2.3
Subtotal		**12,100**	**2.3**
East Option – Staples Ranch Area			
New Pipeline	6-18	10,500	2.0
Existing Pipeline – Stoneridge Drive	18	2,100	0.4
Subtotal		**12,600**	**2.4**
New Pipeline - Subtotal		**15,200**	**12.9**
Repurposed Pipeline - Subtotal		**16,500**	**3.2**
TOTAL		**131,700**	**29.1**

Construction activities for this kind of project will typically occur with periodic activity peaks, requiring brief periods of significant effort followed by longer periods of reduced activities. In order to characterize and analyze potential construction impacts, the City has assumed that the project would be constructed by two (2) crews of 10-15 workers each and would proceed at a rate of approximately 500-1,000 feet per day. However, specific details may change or vary slightly. Staging areas for storage of pipe, construction equipment, and other materials would be placed at locations (primarily empty parking lots) that would minimize hauling distances and long-term disruption.

Excavation and grading activities would be necessary for construction of the Proposed Project/Action. Excavated materials resulting from site preparation would either be used on-site during construction or disposed of at a fill area authorized by the City. It is not anticipated that any soils would be imported for this project. Additional truck trips would be necessary to deliver materials, equipment, and asphalt-concrete to the site. During peak excavation and earthwork activities, the Proposed Project/Action could generate up to 40 round-trip truck trips per day. In support of these activities and for the assumptions for this document, the types of equipment that may be used at any one time during construction may include, but not limited to:

- Track-mounted excavator
- Backhoe
- Grader
- Crane
- Dozer
- Compactor
- Trencher/boring machine
- End and bottom dump truck
- Front-end loader
- Water truck
- Flat-bed delivery truck
- Forklift
- Compressor/jack hammer
- Asphalt paver & roller
- Street sweeper

It is recognized that details of the construction activities and methods may change slightly as the specific details will be developed during final design and by the selected contractor. However, this description provides sufficient information to base the conclusions to probable environmental impacts associated with construction activities for this kind of project. Therefore, as long as the construction methods are generally consistent with these methods and do not conflict with any of the City's design standards or established ordinances, and does not create any new potential environmental impacts that are not described within this document, then no new environmental analyses will likely be required for any minor change in construction activities, timing, and/or schedule.

2.3 Compliance with CCR Title 22 and State Board's Recycled Water Policy

The Proposed Project/Action will be designed and operated in accordance with the applicable requirements of CCR Title 22 and any other state or local legislation that is currently effective or may become effective as it pertains to recycled water. The State Board adopted a Recycled Water Policy (RW Policy) in 2009 to establish more uniform requirements for water recycling throughout the State and to streamline the permit application process in most instances. As part of that process, the State Board prepared an Initial Study and Mitigated Negative Declaration for the use of recycled water. The newly adopted RW Policy includes a mandate that the State increase the use of recycled water over 2002 levels by at least 1,000,000 AFY by 2020 and by at least 2,000,000 AFY by 2030. Also included are goals for

storm water reuse, conservation and potable water offsets by recycled water. The onus for achieving these mandates and goals is placed both on recycled water purveyors and potential users. The State Board has designated the Regional Water Quality Control Boards as the regulating entities for the Recycled Water Policy. In this case, the San Francisco Bay Regional Water Quality Control Board (San Francisco RWQCB) is responsible for permitting recycled water projects throughout the San Francisco Bay Area, including the City of Pleasanton.

The Proposed Project/Action will be provided high quality unrestricted use tertiary treated recycled water from the City of Livermore Waste Water Treatment Facility and the DSRSD/EBMUD Recycled Water Authority (DERWA) and made available to users within the City. All irrigation systems will be operated in accordance with the requirements of Title 22 of the CCR, the State Board Recycled Water Policy, and any other local legislation that is effective or may become effective as it pertains to recycled water and any reclamation permits issued by the San Francisco RWQCB. Reclamation permits typically require the following:

- Irrigation rates will match the agronomic rates of the plants being irrigated;
- Control of incidental runoff through the proper design of irrigation facilities;
- Implementation of a leak detection program to correct problems within 72 hours or prior to the release of 1,000 gallons whichever occurs first;
- Management of ponds containing recycled water to ensure no discharges; and
- Irrigation will not occur within 50 feet of any domestic supply wells, unless certain conditions have been met as defined in Title 22.

2.4 Operational and Maintenance Plans

The City does not currently, but intends to, have operations, maintenance, and support staff to distribute recycled water. The City has completed operations, maintenance, and treatment agreements with the City of Livermore and DERWA to provide the City of Pleasanton with recycled water. As it is currently agreed, the City of Livermore and DERWA would operate and maintain the treatment portion for delivery of recycled water to the City of Pleasanton. Pleasanton would require and enforce an irrigation schedule among its users. This arrangement is referred to as a "water master." The 'water master' strategy will vary irrigation schedules in a way that optimizes use of the distribution system. The water master schedule may be modified in the future, but the initial assumptions are outlined below.

- Vineyard Demand Factor - 0.33 AFY/acre
- Landscaping Demand Factor - 2.5 AFY/acre
- Vineyard Irrigation hours (Summer) 6am – 6pm
- Landscape Irrigation hours (Summer) 6pm – 6am
- Summer storage filling 6pm – 6am
- Winter storage filling 24 hours per day

By irrigating using the above scheduling, peak flows are reduced and pipe sizing is optimized. For more detailed information about the water master concept refer to the *2013 City of Pleasanton Recycled Water Feasibility Report*.

Maintenance procedures will include 1 or 2 existing City workers who will routinely inspect the pipeline alignment and connections for leaks and repair facilities on an as needed basis as well as conduct scheduled preventative maintenance procedures to keep the facilities in good working order.

2.5 Responsible Agencies, Permits and Approvals

Table 2 below summarizes the potential permits and/or approvals that may be required prior to construction of the Proposed Project/Action. Additional local approvals and permits may also be required.

Table 2: Regulatory Requirements, Permits, and Authorizations for Project/Action Facilities

Agency	Type of Approval
San Francisco Bay Regional Water Quality Control Board	National Pollutant Discharge Elimination System General Permit for Stormwater Discharge Associated with Construction Activities Recycled Water Use Permit Amendment
California Division of Occupational Safety and Health	Construction activities in compliance with CAL/OSHA safety requirements
Bay Area Air Quality Management District (BAAQMD)	Authority to Construct
	Permit to Operate

2.6 No Project/Action Alternative

Under the No Project/Action Alternative, the City's Proposed Project/Action would not be constructed and therefore impacts as a result of this specific Proposed Project/Action as described here within this document would not be encountered. For this analysis, it is assumed that the existing baseline condition and the future No Project/Action condition are the same. This No Project/Action Alternative assumes that none of the Proposed Project/Action facilities would be constructed. As a result, the impact description and summary compares the Proposed Project/Action to the No Project/Action. With that said, if the City does not implement the Proposed Project/Action, one of two scenarios will likely need to be implemented to meet the City's future water supply demands: 1) meet increased demands through more aggressive conservation measures or 2) have Zone 7 procure additional water supplies to meet the City's increased water supply demands. However, at this time, the specific details of these activities are not known and therefore it would be difficult to have a meaningful discussion of their potential environmental impacts in relation to the Proposed Project/Action.

Chapter 3 Environmental Review and Consequences

This chapter evaluates the potential for the Proposed Project/Action to have a significant effect on the environment. Using a modified CEQA Environmental Checklist Form as presented in Appendix G of the CEQA Guidelines as a framework, the checklist identifies the potential environmental impacts of the Proposed Project/Action pursuant to both CEQA and NEPA. This document compares the Proposed Project/Action against the No Project/Action Alternative as is required by CEQA and NEPA.

Environmental Impact Designations

For this checklist, the following designations are used to distinguish between levels of significance of potential impacts to each resource area:

Potentially Significant Impact. Adverse environmental consequences that have the potential to be significant according to the threshold criteria identified for the resource, even after mitigation strategies are applied and/or an adverse effect that could be significant and for which no mitigation has been identified. If any resultant potentially significant impacts are identified, an EIR/EIS may need to be prepared to meet CEQA and NEPA requirements, respectively.

Less-than-Significant Impact with Mitigation. Adverse environmental consequences that have the potential to be significant, but can be reduced to less-than-significant levels through the application of identified mitigation strategies that are not already been incorporated into the Proposed Project/Action description.

Less-than-Significant Impact. Potential adverse environmental consequences have been identified. However, they are not so adverse as to meet the significance threshold criteria for that resource. Therefore, no mitigation measures are required.

No Impact. No adverse environmental consequences have been identified for the resource or the consequences are negligible or undetectable. Therefore, no mitigation measures are required.

Environmental Resources Evaluated

The following are the key environmental resources that were evaluated in this document.

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

3.1 Aesthetics

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

Discussion

(a) **No Impact.** The Proposed Project/Action is not located in or near any designated scenic vistas and therefore would not have a substantial impact on a scenic vista. Specifically, scenic views in the project vicinity are primarily limited to distant hills to north, west, and east. The construction activities of the Proposed Project would not substantially interfere with views of these resources from surrounding publicly accessible areas. No impacts are anticipated and no specific mitigation measures are required.

(b) **No Impact.** The Proposed Project/Action is not located near or within a designated state scenic highway and therefore would not damage scenic resources, including but not limited to trees, outcroppings, and historic buildings within a state scenic highway. The Proposed Project/Action's construction activities would not be located within any area that has been designated as a scenic vista or scenic resource. The closest scenic highway to the project site is I-680, about 1 mile west. Due to distance and substantial intervening urban development, the Proposed Project/Action construction activities would not be visible from this or any other scenic highway and/or resources. Therefore, no impacts are anticipated and no specific mitigation measures are required.

(c) **Less-than-Significant Impact.** Construction of the Proposed Project/Action's pipeline facilities would be visible and would involve temporary negative aesthetic effects, including open trenches as well as the presence of construction equipment and materials. Construction impacts of the pipeline facilities would be temporary and are considered to be less-than-significant. Once built, the pipeline facilities would be buried underground and not visible. Installation of the upgrades and expansion of the DSRSD WWTP would occur within the existing DSRSD WWTP facilities and would not have any significant visual impacts. Operation of the Proposed Project/Action would not affect any visual resources. Therefore, no impacts are anticipated and no specific mitigation measures are required.

(d) **No Impact.** The Proposed Project/Action would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. The Proposed Project/Action would not be constructed during nighttime hours and once constructed there would be no lights or other sources of light or glare. Therefore no impacts would occur and no mitigation is required.

3.2 Agricultural Resources

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the Proposed Project/Action:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☒	☐

Discussion

(a) **No Impact.** The Proposed Project/Action would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. The Proposed Project/Action would be constructed within existing roadways within the City. In addition, the Proposed Project/Action will not be located on any existing agricultural fields or farmlands. As a result, the Proposed Project/Action would convert any farmland to non-agricultural usage. No mitigation is required or necessary.

(b) **No Impact.** The Proposed Project/Action would not conflict with existing zoning for agricultural use or a Williamson Act contract. As stated above, the Proposed Project/Action would be constructed within existing roadways within the City. In addition, the Proposed Project/Action will not be located on any existing agricultural fields or farmlands. As a result, the Proposed Project/Action would not conflict with agricultural practices and/or a Williamson Act Contract. No mitigation is required or necessary.

(c) **Less- than-Significant Impact.** As mentioned above, the Proposed Project/Action would be primarily constructed within existing roadways within the City. Therefore, the Proposed Project/Action would not involve changes in the existing environment, which, due to their location or nature, would result in the conversion of farmland or agricultural practices to non-agricultural use. No mitigation is required or necessary.

3.3 Air Quality

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the Proposed Project/Action:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
g) Conflict with an application plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Discussion

(a) **Less-than-Significant Impact.** The Proposed Project/Action is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), the regional agency empowered to regulate air pollutant emissions from stationary sources in the Bay Area. BAAQMD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and review process. The Project site is located in the San Francisco Bay Area Air Basin. This Basin is currently designated "non-attainment" for the state 1-hour ozone standard. To meet planning requirements related to this standard, the BAAQMD developed a regional air quality plan, the Bay Area 2000 Clean Air Program (CAP), the BAAQMD's most recent triennial update of the 1991 Clean Air Plan. A significant impact would occur if a project conflicted with the plan by not mirroring assumptions of the plan regarding population growth and vehicle-miles-traveled. The Proposed Project/Action could accommodate population growth because the Project would provide recycled water, making potable supplies more available, and thus increasing the overall supply of water. However, the addition of up to 2,500 acre-feet of recycled water for irrigation

within the City would not significantly result in any increased growth or development. In addition, to meet the Water Conservation Bill of 2009, the City has set the goal of achieving a twenty percent reduction in water consumption by 2020. This equates to a "target" of 195 gallons per capita per day (gpcd), a twenty percent reduction from a baseline of 244 gpcd. As a result, the City is seeking to meet its current and planned future development through a reduced overall water supply.

Once constructed, the Proposed Project/Action would not generate any new significant operational vehicle trips. Any impacts are considered to be less-than-significant. No mitigation is required or necessary.

(b) **Less-than-Significant Impact with Mitigation.** The entire San Francisco Bay Area is currently designated "non-attainment" for the state PM_{10} and $PM_{2.5}$ standards, the state 1-hour ozone standard. The Bay Area is in "attainment" or "unclassified" with respect to the other ambient air quality standards. As part of the effort to reach attainment of these standards, the BAAQMD has established thresholds of significance for several criteria air pollutants associated with both the construction and operation of projects[1]. Specifically, a project is considered to have a significant regional air quality impact if it would result in an increase in emissions of 80 pounds per day or 15 tons per year of PM_{10}, and/or of reactive organic gases (ROG) or nitrogen oxides (NO_X). ROG and NO_X are both ozone precursors.

Construction activities at the project site would begin in the summer of 2014 and continue into the summer of 2019 and would include excavation and grading activities. Overall construction work would require the use of various types of mostly diesel-powered equipment, including bulldozers, wheel loaders, excavators, and various kinds of trucks.

Construction activities typically result in emissions of particulate matter, usually in the form of fugitive dust from activities such as trenching and grading. Emissions of particulate matter vary day-to-day, depending on the level and type of activity, silt content of the soil, and the prevailing weather. Estimated construction emissions for the pipeline construction were generated using the Sacramento Metropolitan Air Quality Management District's i.e. URBEMIS Construction Emissions Model. (Note that this model was used because it has been recommended by BAAQMD). The URBEMIS Construction Emissions Model is a Microsoft Excel worksheet available to assess the emissions of linear construction projects. The estimated construction equipment fleet mix and the acreage and soil volume were put into the URBEMIS model in order to determine potential emissions. Table 3 summarizes the Proposed Project/Action's estimated construction related emissions output from the URBEMIS model in maximum pounds per day as

[1] BAAQMD's CEQA Guidelines were developed to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality. These CEQA Guidelines were updated in June 2010 to include reference to thresholds of significance ("Thresholds") adopted by the Air District Board on June 2, 2010. The Guidelines were further updated in May 2011. On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the Air District had failed to comply with CEQA when it adopted the Thresholds. The court did not determine whether the Thresholds were valid on the merits, but found that the adoption of the Thresholds was a project under CEQA. The court issued a writ of mandate ordering the District to set aside the Thresholds and cease dissemination of them until BAAQMD had complied with CEQA. In view of the court's order, BAAQMD is no longer recommending that the Thresholds be used as a generally applicable measure of a project's significant air quality impacts. Lead agencies will need to determine appropriate air quality thresholds of significance based on substantial evidence in the record. Although lead agencies may rely on BAAQMD's CEQA Guidelines (updated May 2011) for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures, BAAQMD has been ordered to set aside the Thresholds and is no longer recommending that these Thresholds be used as a general measure of a project's significant air quality impacts. Lead agencies may continue to rely on the Air District's 1999 Thresholds of Significance and they may continue to make determinations regarding the significance of an individual project's air quality impacts based on the substantial evidence in the record for that project.

well as in estimated tons for the entire construction duration and compares that data with BAAQMD's daily and project/year thresholds. As shown in Table 3, the Proposed Project/Action's construction emissions do not exceed BAAQMD's daily and/or annual significance thresholds.

BAAQMD's approach to analyses of construction impacts as noted in their BAAQMD CEQA Guidelines is to emphasize implementation of effective and comprehensive basic construction control measures rather than detailed quantification of emissions. With implementation of the mitigation measures below, the Proposed Project/Action's construction-related impacts would be further reduced to less-than-significant levels.

Table 3: Estimated Proposed Project/Action Construction Emissions

Construction Phase	Construction Emissions (lbs/day)				
	ROG	CO	NOx	PM_{10}	$PM_{2.5}$*
Grubbing/Land Clearing	19.3	72.3	74.4	5.9	4.9
Grading/Excavation	18.7	74.4	74.0	5.9	4.9
Drainage/Utilities/Subgrade	15.5	65.2	63.5	5.0	4.1
Paving	13.3	58.4	50.5	3.9	3.5
Maximum (lbs/day)**	**19.3**	**74.4**	**74.4**	**5.3**	**4.9**
Total Tons/Project/Year	**4.8**	**36.3**	**35.4**	**2.8**	**2.3**
BAAQMD's Thresholds of Significance***					
Pounds per Day	80	550	80	80	80
Tons per Project/Year	15	100	15	15	15
Potentially Significant Impact?	**No**	**No**	**No**	**No**	**No**
Notes					

* BAAQMD does not have a threshold for $PM_{2.5}$; however, the same threshold for PM_{10} is used herein.
**Maximum daily emissions refers to the maximum emissions that would occur in one day. Not all phases will be occurring concurrently; therefore, the maximum daily emissions are not a summation of the daily emission rates of all phases.
*** BAAQMD's May 2011 Thresholds were invalidated by Alameda County Superior Court and BAAQMD recommends using its 1999 Thresholds.

BAAQMD's approach to analyses of construction impacts as noted in their BAAQMD CEQA Guidelines is to emphasize implementation of effective and comprehensive basic construction control measures rather than detailed quantification of emissions. With implementation of the mitigation measures below, the Proposed Project/Action's construction-related impacts would be further reduced to less-than-significant levels.

Mitigation Measure AIR-1: Basic Construction Mitigation Measures Recommended for ALL Proposed Projects. During all phases of construction, the following procedures shall be implemented:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

- All vehicle speeds on unpaved roads shall be limited to 15 mph.

- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer‘s specifications. All equipment shall be checked by a certified visible emissions evaluator.

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District‘s phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AIR-2: Additional Construction Mitigation Measures for Projects with Emissions over the Thresholds. During all phases of construction, the following procedures shall be implemented:

- All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

- Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.

- Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

- The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

- Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.

- Minimizing the idling time of diesel powered construction equipment to two minutes.

- The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.

- Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).

- Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.

- Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines.

Once operational, emission sources resulting from project operations would be associated with primarily regular maintenance and inspection work. Operational impacts would be considered less-than-significant. With respect to project conformity with the federal Clean Air Act, the Proposed Project/Action's potential emissions are well below minimum thresholds and are below the area's inventory specified for each criteria pollutant designated non-attainment or maintenance for the Bay Area. As such, further general conformity analysis is not required.

(c) **Less-than-Significant Impact with Mitigation.** As stated above, the entire San Francisco Bay Area is currently designated "non-attainment" for the state PM_{10} and $PM_{2.5}$ standards, the state 1-hour ozone standard. The Bay Area is in "attainment" or "unclassified" with respect to the other ambient air quality standards. The BAAQMD is active in establishing and enforcing air pollution control rules and regulations in order to attain all state and federal ambient air quality standards and to minimize public exposure to airborne toxins and nuisance odors. Air emissions would be generated during construction of the Proposed Project/Action, which could increase criteria air pollutants, including PM_{10}. However, construction activities would be temporary and would incorporate the implementation of **Mitigation Measure AIR-1 and AIR-2** as identified above.

As mentioned above, upon completion of construction activities emission sources resulting from Project operations would be associated with regular maintenance and inspection work. Given the limited number of trips that would be required, only limited emissions would be generated; these emissions would be expected to be well below BAAQMD guidelines. See Table 3 above. As such, the Proposed Project/Action would not result in a cumulatively considerable net increase of any criteria air pollutants, and the impacts would be even less-than-significant with implementation of **Mitigation Measure AIR-1 and AIR-2** as identified above.

(d) **Less-than-Significant Impact with Mitigation.** Diesel emissions would result both from diesel-powered construction vehicles and any diesel trucks associated with project operation. Diesel particulate matter (DPM) has been classified by the California Air Resources Board as a toxic air contaminant for the cancer risk associated with long-term (i.e., 70 years) exposure to DPM. Given that construction would occur for a limited amount of time and that only a limited number of diesel trucks would be associated with operation of the project, localized exposure to DPM would be minimal. As a result, the cancer risks from the project associated with diesel emissions over a 70-year lifetime are very small. Therefore, the impacts related to DPM would be less-than-significant. Likewise, as noted above, the project would not result in substantial emissions of any criteria air pollutants either during construction or operation with the implementation of **Mitigation Measure AIR-1 and AIR-2**; therefore, the project would not expose sensitive receptors, including residents in the project vicinity, to substantial pollutant concentrations. With the implementation of **Mitigation Measure AIR-1 and AIR-2**, impacts to sensitive receptors would be less-than-significant. No additional mitigation measures are required.

(e) **Less-than-Significant Impact.** During construction of the Proposed Project/Action, the various diesel-powered vehicles and equipment in use on-site could create minor odors. These odors are not likely to be noticeable beyond the immediate area and, in addition, would be temporary and short-lived in nature. Furthermore, the Proposed Project/Action does not include any expansion or increase in wastewater coming into the plant and therefore would not result in any additional odors coming from the DSRSD WWTP. In addition the use of recycled water would not produce any objectionable odors. Therefore, odor impacts would be less-than-significant. No specific mitigation measures are required.

(f) **Less-than-Significant Impact with Mitigation.** During construction of the Proposed Project/Action, the various diesel-powered vehicles and equipment in use on-site could generate greenhouse gas emissions. Specifically, while BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions, the Proposed Project/Action would not exceed the thresholds for NOx that would generate greenhouse gas emissions that could be considered significant. In addition, with implementation of **Mitigation Measure AIR-1 and AIR-2** any potential to generate greenhouse gas emissions would be reduced to less-than-significant levels. No additional mitigation measures are required.

(g) **No Impact.** The Proposed Project/Action would not conflict with an application plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No mitigation is necessary or required.

3.4 Biological Resources

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

Discussion

A record search of CDFW's California Natural Diversity Database (CNDDB) and USFWS' Species List was conducted for the area within a five-mile radius of the Project area to identify previously reported occurrences of state and federal special-status plants and animals. In addition, several field visits of the pipeline alignment were conducted on February 28 and April 15, 2014 to determine the potential for special-status species to occur within the general vicinity of the Proposed Project/Action Study Area (i.e.

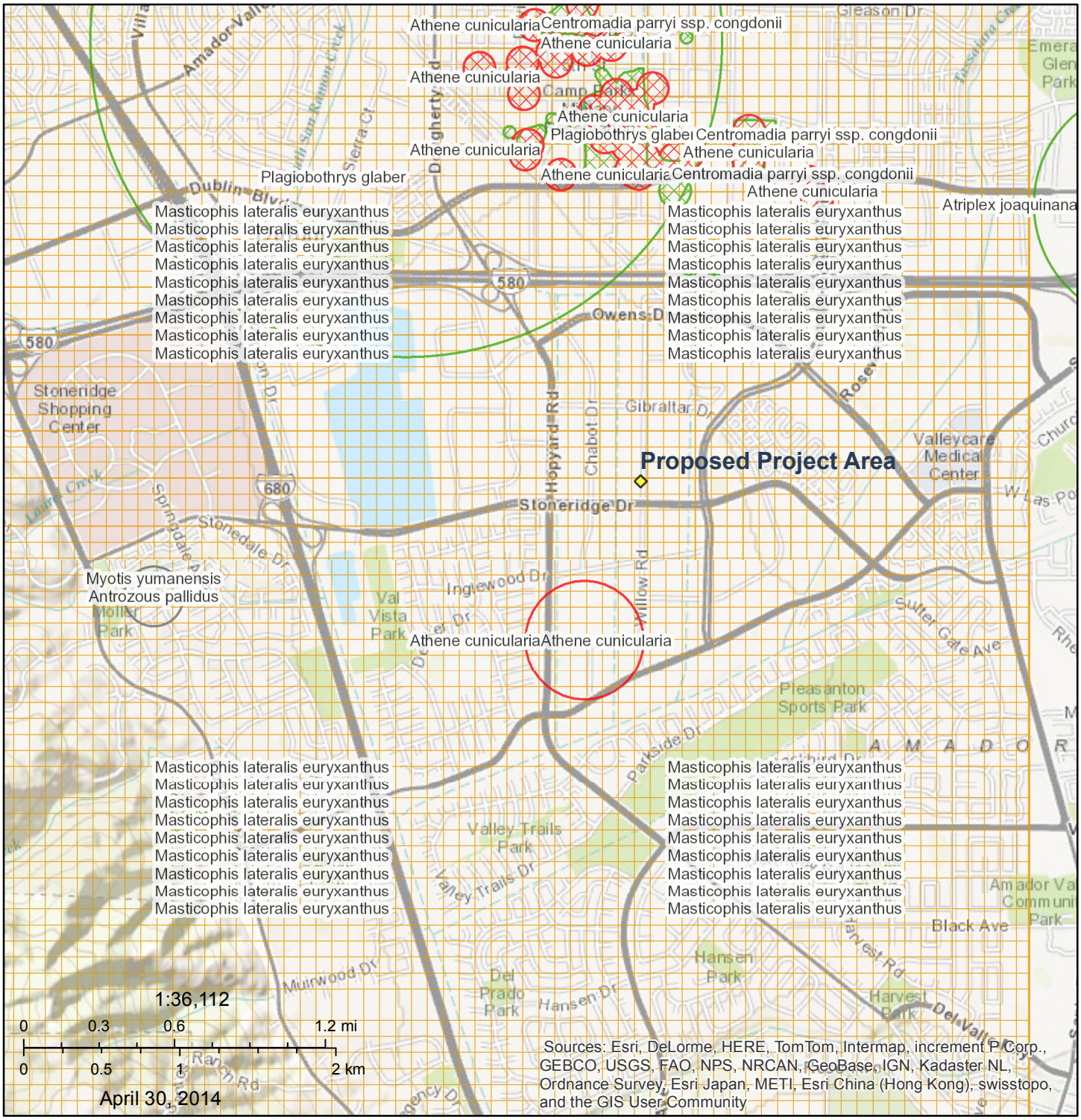
Construction Area) as described in Chapter 2 – Project Description. These field visits were not intended to be protocol-level surveys to determine the actual absence or presence of special-status species, but were conducted to determine the potential for special-status species to occur within the Proposed Project/Action Area. No special-status species were observed during the field visits. Figure 3 – shows the location of known state and federal listed species within the Project/Action Area. Appendix B provides a summary of the potential for state and federal special status species to occur within the Proposed Project/Action Study Area. Appendix C provides an analysis of the potential for the Proposed Project/Action to adversely effect federal special status species in order to satisfy the requirements for CEQA-Plus and NEPA and the federal resource agencies.

(a) **Less-than Significant Impact with Mitigation.** The Proposed Project/Action would be primarily constructed within existing roadways in the City and within DSRSD's existing WWTP. While the Proposed Project/Action would occur in a highly urban area, the potential exists that construction activities could 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 CDFW and USFWS.

A review of the CDFW's CNDDB and USFWS' Species List and indicates that there is not suitable habitat for special status plant species (See Appendix B and Figure 3). However, there is the potential (albeit very minor) for the construction activities of the Proposed Project/Action to affect the Alameda whipsnake (*Masticophis lateralis euryxanthus*) which is both a federal and state listed species (i.e Threatned). As a precautionary measure, these potential impacts to the Alameda whipsanke would be minimized to less-than-significant levels with the incorporation of the following mitigation measures and procedures:

BIO-1: Conduct Alameda whipsnake Pre-construction Surveys. Prior to construction, the City shall conduct focused pre-construction surveys for the Alameda whipsnake at all project sites/areas within or directly adjacent to areas identified as having high potential for whipsnake occurrence. Project sites within high potential areas shall be fenced to exclude snakes prior to project implementation. Methods for pre-construction surveys, burrow excavation, and site fencing shall be developed prior to implementation of any project located within or adjacent to areas mapped as having high potential for whipsnake occurrence. Such methods would be developed in consultation or with approval of USFWS for any development taking place in USFWS officially designated Alameda whipsnake critical habitat. Pre-construction surveys of such project sites shall be carried out by a permitted biologist familiar with whipsnake identification and ecology (Swaim, 2002). These are not intended to be protocol-level surveys but designed to clear an area so that individual whipsnakes are not present within a given area prior to initiation of construction. At sites where the project footprint would not be contained entirely within an existing developed area footprint and natural vegetated areas would be disturbed any existing animal burrows shall be carefully hand-excavated to ensure that there are no whipsnakes within the project footprint. Any whipsnakes found during these surveys shall be relocated according to the Alameda Whipsnake Relocation Plan. Snakes of any other species found during these surveys shall also be relocated out of the project area. Once the site is cleared it shall then be fenced in such a way as to exclude snakes for the duration of the construction activities. Fencing shall be maintained intact throughout the duration of the construction activities. All construction activities shall be performed during daylight hours, or with suitable lighting so that snakes can be seen. Vehicle speed on the construction site shall not exceed 5 miles per hour.

Figure 3 - Location of Federal and State Listed Species in Project Area



- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

Author: cnddb_com
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In addition, there are many numerous mature trees within and adjacent to the proposed pipeline construction activities. Mature trees can serve as perching or nesting sites for migratory birds, including raptors, and that their removal can adversely affect breeding behavior. In addition, construction activities could affect the western burrowing owl (*Athene cunicularia*), a state-listed species of special concern that is known to exist in the area and which is protected under the California Fish and Wildlife Code and the Federal Migratory Bird Treaty Act. Potential impacts to special status birds would be minimized to less-than-significant levels with the incorporation of the following mitigation measures and procedures:

Mitigation Measure BIO-2: Conduct Breeding Surveys. For construction activities that occur between February 1 and August 31, preconstruction breeding bird surveys shall be conducted by a qualified biologist prior to and within 10 days of any initial ground-disturbance activities. Surveys shall be conducted within all suitable nesting habitat within 250 feet of the activity. All active, non-status passerine nests identified at that time should be protected by a 50-foot radius minimum exclusion zone. Active raptor or special-status species nests should be protected by a buffer with a minimum radius of 200 feet. CDFW and USFWS recommend that a minimum 500-foot exclusion buffer be established around active white-tailed kite and golden eagle nests. The following considerations apply to this mitigation measure:

- Survey results are valid for 14 days from the survey date. Should ground disturbance commence later than 14 days from the survey date, surveys should be repeated. If no breeding birds are encountered, then work may proceed as planned.
- Exclusion zone sizes may vary, depending on habitat characteristics and species, and are generally larger for raptors and colonial nesting birds. Each exclusion zone would remain in place until the nest is abandoned or all young have fledged.
- The non-breeding season is defined as September 1 to January 31. During this period, breeding is not occurring and surveys are not required. However, if nesting birds are encountered during work activities in the non-breeding season, disturbance activities within a minimum of 50 feet of the nest should be postponed until the nest is abandoned or young birds have fledged.

Mitigation Measure BIO-3: Conduct Nesting Surveys. For any construction activities initiated between March 15 and September 1, surveys for nesting western burrowing owls and/or raptors are required within 0.25 miles of areas of disturbance. If an active nest is found, a qualified biologist shall monitor the nest during construction activities within 0.25 miles of the nest to determine whether project construction may result in abandonment. The biologist shall continue monitoring the nest until construction within 0.25 miles of the nest is completed, or until all chicks have completely fledged. If the monitor determines that construction may result in abandonment of the nest, all construction activities within 0.25 miles should be halted until the nest is abandoned or all young have fledged.

The implementation of the above mitigation measures would reduce impacts associated with the Proposed Project/Action to a level of less-than-significant. No additional mitigation measures are required.

(b) **No Impact.** The Proposed Project/Action would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. As a result, no impact is expected and no specific mitigation is required.

(c) **No Impact.** The Proposed Project/Action would not have an 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. As a result, no impact is expected and no specific mitigation is required.

(d) **Less-than-Significant Impact with Mitigation.** The Proposed Project/Action would not interfere substantially with the movement of any native resident or migratory fish or wildlife corridors, or impede the use of native wildlife nursery sites. As stated above, the Proposed Project/Action would be constructed primarily within existing roadways within the City. However, construction activities could adversely affect the Alameda whipsnake, the western Burrowing Owl, and non-listed special-status nesting raptors. Many raptors are sensitive to loud construction noise such as that associated with grading and demolition. Such activities could cause nest abandonment or destruction of individual active raptor nests. Because the Alameda whipsnake is a threatened species under the sate and federal lists and the western burrowing owl as well as all raptors and their nests are protected under 3503.5 of the California Fish and Wildlife Code, construction of the Proposed Project/Action could result in a significant impact to these species. However, with the implementation of **Mitigation Measures BIO-1, BIO-2, and BIO-3** these potential impacts would be reduced to less-than-significant levels.

(e) **No Impact.** The Proposed Project/Action is not expected to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. As a result, no impact is expected and no specific mitigation is required.

(f) **No Impact.** The Proposed Project/Action would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, there is no impact and no mitigation is required.

3.5 Cultural Resources

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

Discussion

On April 30, 2014, a records search was conducted by staff at the Northwest Information Center, Sonoma State University, Rohnert Park, California. The record search included the Project Area of Potential Effect (APE) and a 0.50-mile radius outside the project boundaries. The record search included current inventories of National Register of Historic Places (HRHP), the California Register of Historical Resources (CRHP), the California of Historical Resources, California State Historic Landmarks, and the California Points of Historical Interest. In addition, a field reconnaissance survey was conducted on February 28 and April 15, 2014 to determine the presences of any known cultural resources. In addition a follow-up survey was conducted on May 9, 2014. In short, no cultural resources were identified in the records search and the field surveys that would be affected by the construction and/or operation of the Proposed Project/Action. A more complete analysis is provided in Appendix C.

(a) **No Impact.** The Proposed Project/Action would not cause a substantial adverse change in the significance of a historical resource. No listed or historical properties exist within the Proposed Project/Action Area. As a result, there is no impact and no specific mitigation is required.

(b) **Less-than-Significant Impact with Mitigation.** No known significant archaeological resources are known to exist within the Project area. Therefore, the Proposed Project/Action is not likely to cause a substantial adverse change in the significance of unique archaeological resources. Nevertheless, there is a slight chance that construction activities of the Proposed Project/Action could result in accidentally discovering unique archaeological resources. However, to further reduce this less-than-significant impact, the following mitigation measures are recommended:

Mitigation Measure CR-1: Halt work if cultural resources are discovered. In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resources shall be halted and after notification, the City shall consult with a qualified archaeologist to assess the significance of the find. If any find is determined to be significant (CEQA Guidelines 15064.5[a][3] or as unique archaeological resources per Section 21083.2 of the California Public Resources Code), representatives of the City and a qualified archaeologist shall meet to determine the appropriate course of action. In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the lead agency shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out.

With the implementation of the above mitigation measure, the Proposed Project/Action would not result in impacts to historical resources.

(c) **Less-than-Significant Impact with Mitigation.** Paleontologic resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide, and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils – particularly vertebrate fossils – are considered to be nonrenewable resources. Because of their rarity, and the scientific information they can provide, fossils are highly significant records of ancient life.

No known significant paleontological resources exist within the Project area. Also, because the Proposed Project/Action would result in minimal excavation in bedrock conditions, significant paleontologic discovery would be unlikely. However, fossil discoveries can be made even in areas of supposed low sensitivity. In the event a paleontologic resource is encountered during project activities, implementation of the following mitigation measure would reduce potential impacts to less-than-significant.

Mitigation Measure CR-2: Stop work if paleontological remains are discovered. If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the City.

With the implementation of the above mitigation measure, the Proposed Project/Action would not result in impacts to unique paleontological or geological resources.

(d) **Less-than-Significant Impact with Mitigation.** There are no known burial sites within the project area. Nonetheless, the possibility exists that subsurface construction activities may encounter undiscovered human remains. Accordingly, this is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less-than-significant.

Mitigation Measure CR-3: Halt work if human remains are found. If human remains are encountered during excavation activities conducted for the Proposed Project/Action, all

work in the adjacent area shall stop immediately and the Alameda County Coroner's office shall be notified. If the Coroner determines that the remains are Native American in origin, the Native American Heritage Commission shall be notified and will identify the Most Likely Descendent, who will be consulted for recommendations for treatment of the discovered human remains and any associated burial goods.

3.6 Geology and Soils

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

Discussion

(a) **Less-than-Significant Impact.** The Proposed Project/Action consists primarily of a pipeline system that would be constructed within and under existing roadways. In addition, the Proposed Project/Action will involve minor upgrades to the existing DSRSD WWTP's tertiary filtration

system. However, the Proposed Project/Action does not expose people or structures to potential substantial adverse effects, including the risk of loss and injury due to a seismic event. The proposed pipeline will not cross a known fault, but the project area is susceptible to strong groundshaking during an earthquake that could occur along known faults in the region. However, the Proposed Project/Action does not expose people or structures to potential substantial adverse effects, including the risk of loss and injury due to a seismic event.

(b) **Less-than-Significant Impact.** Construction activities associated with the Proposed Project/Action would involve excavation and earthmoving which could cause erosion or loss of topsoil. Construction activities would involve excavation, moving, filling, and the temporary stockpiling of soil. Earthwork associated with development construction could expose soils to erosion. However, the Proposed Project/Action would be constructed in existing roadways and utility corridors and would be covered and paved immediately after the pipeline has been installed. As a result, any soil erosion or loss of top soil would be considered less-than-significant.

(c) **Less-than-Significant Impact with Mitigation.** The Proposed Project/Action may be located in areas that consist of medium dense to dense fine granular soils. In addition, perched ground water could be present. As such, the soil in some areas of the alignment may have a high susceptibility to liquefaction during seismic shaking. Other portions of the Project may be less susceptible to liquefaction and related damage. Lateral spreading, often associated with liquefaction, is less likely because there are no steep banks or hard ground bordering the Project area, but could still potentially be a hazard. As a result, the following mitigation is proposed:

> **Mitigation Measure GEO-1: Perform Geotechnical Investigation.** The City shall require a design-level geotechnical study to be prepared prior to project implementation to determine proper design and construction methods, including any cathodic protection measures needed for installing the pipelines in these soils.

With the incorporation of this mitigation measure, any resulting impacts would be considered to be less-than-significant.

(d) **Less-than-Significant Impact with Mitigation.** The Proposed Project/Action could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994). However, with the incorporation of **Mitigation Measures GEO-1** above, any impacts would be less-than-significant.

(e) **Less-than-Significant Impact.** The Proposed Project/Action would not include the use of septic tanks or alternative wastewater disposal systems. Therefore, no adverse effects to soil resources are expected. No mitigation is required.

3.7 Hazards and Hazardous Materials

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

Discussion

(a) **Less-than-Significant Impact with Mitigation.** Operation of the Proposed Project/Action would not involve the routine transportation, use, storage, and/or disposal of hazardous materials. However, construction of the Proposed Project/Action could temporarily increase the transport of

materials generally regarded as hazardous materials that are used in construction activities. It is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluids, paint, and other similarly related materials would be brought onto the project site, used, and stored during the construction period. The types and quantities of materials to be used could pose a significant risk to the public and/or the environment. In addition, construction of the Proposed Project/Action could result in the exposure of construction workers and residents to potentially contaminated soils. As a result the following mitigation measures are proposed:

Mitigation Measure HAZ-1: Store, Handle, Use Hazardous Materials in Accordance with Applicable Laws. The City shall ensure that all construction-related hazardous materials and hazardous wastes shall be stored, handled, and used in a manner consistent with relevant and applicable federal, state, and local laws. In addition, construction-related hazardous materials and hazardous wastes shall be staged and stored away from stream channels and steep banks to keep these materials a safe distance from near-by residents and prevent them from entering surface waters in the event of an accidental release.

Mitigation Measure HAZ-2: Properly Dispose of Contaminated Soil and/or Groundwater. If contaminated soil and/or groundwater is encountered or if suspected contamination is encountered during project construction, work shall be halted in the area, and the type and extent of the contamination shall be identified. A contingency plan to dispose of any contaminated soil or groundwater will be developed through consultation with appropriate regulatory agencies.

Mitigation Measure HAZ-3: Properly Dispose of Hydrostatic Test Water. Dewatering of the pipeline during hydrostatic testing during construction, as well as any dewatering as a result of operations and maintenance activities, shall be discharged to land or the sanitary sewer system and not into any creeks, drainages, or waterways and shall require prior approval from the San Francisco Bay Regional Water Quality Control Board.

(b) **Less-than-Significant Impact with Mitigation.** The operation of the Proposed Project/Action could create an additional significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. As with all construction activities, the potential exists for accidents to occur, which could result in the release of hazardous materials into the environment. With the incorporation of **Mitigation Measures HAZ-1 and HAZ-2** identified above, potential impacts are considered to be less-than-significant.

(c) **Less-than-Significant Impact.** Construction of portions of the pipeline segments of the Proposed Project/Action would be located within one-quarter mile of several schools. Although construction activities would require the use of some hazardous materials, due to the short duration and limited extent of construction activity, the potential for accidental release of hazardous materials associated with construction activities to affect nearby school children would be considered less-than-significant. No mitigation is required.

(d) **No Impact.** The Proposed Project/Action is not located on a site that is known to be included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and therefore would not create a significant hazard to the public or the environment. Specifically, a records search was conducted using the State of California Department of Toxic Substance

Control's Envirostor Database and GIS mapping system and no records of any identified hazardous waste or materials was identified within the Proposed Project/Action Area. As a result, no impact is expected and no specific mitigation is required.

(e) **Less-than-Significant Impact.** The Proposed Project/Action is located within two miles of the Livermore Municipal Airport. However, construction and/or operation of the Proposed Project/Action would not adversely affect an airport or airport operations, including, noise, take-offs, landings, flight patterns, safety, light, navigation, or communications between aircraft and the control tower within the Project area. Any potential impacts are considered to be less-than-significant. No specific mitigation is required.

(f) **Less-than-Significant Impact.** The Proposed Project/Action is located within two miles of the Livermore Municipal Airport. In addition, there might be private airstrips in the vicinity of the Proposed Project/Action. However, construction and/or operation of the Proposed Project/Action would not adversely affect an airport or airport operations, including, noise, take-offs, landings, flight patterns, safety, light, navigation, or communications between aircraft and the control tower within the Project area. Any potential impacts are considered to be less-than-significant. No specific mitigation is required.

(g) **Less-than-Significant Impact with Mitigation.** The Proposed Project/Action would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As a result, no impacts are anticipated and no mitigation is required. However, when installing the pipelines in the existing roadways, the Proposed Project/Action could block access to nearby roadways for emergency vehicles. With the incorporation of the following mitigation, potential impacts are considered to be less-than-significant.

> **Mitigation Measure HAZ -3: Develop and Maintain Emergency Access Strategies.** In conjunction with Mitigation Measure Traffic-1: Develop a Traffic Control Plan identified below in the Traffic and Transportation section, comprehensive strategies for maintaining emergency access shall be developed. Strategies shall include, but not limited to, maintaining steel trench plates at the construction sites to restore access across open trenches and identification of alternate routing around construction zones. Also, police, fire, and other emergency service providers shall be notified of the timing, location, and duration of the construction activities and the location of detours and lane closures.

(h) **Less-than-Significant Impact.** Construction of the Proposed Project/Action would be located within an urban setting and is not generally located in an area where there is the risk of wildland fire. Specifically, a records search of the California Department of Forestry and Fire Protection Fire Severity mapping system does not regard the Proposed Project/Action Area to be in an area of moderate or high risk to wildfires. As a result, there is little potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires. Any potential impacts are considered to be less-than-significant. No specific mitigation is required.

3.8 Hydrology and Water Quality

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the Proposed Project/Action:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality? (erosion potential)	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion

(a) **Less-than-Significant Impact with Mitigation.** Excavation, grading, and construction activities associated with the Proposed Project/Action could violate water quality as those activities would expose and disturb soils, resulting in potential increases in erosion and siltation in the Project area. Construction during the rainy season could result in increases in erosion, station, and water quality issues. Generally, excavation, grading, paving, and other construction activities would expose disturbed and loosened soils to erosion by wind and runoff. Construction activities could therefore result in increased erosion and siltation, including nutrient loading and increasing the total suspended solids concentration. Erosion and siltation from construction have the potential to impact the creeks and drainage crossings, therefore posing a potentially significant impact to water quality. With the incorporation of the following mitigation, any potential impacts to water quality as a result of construction are reduced to less-than-significant levels.

Mitigation Measure HWQ-1: Implement Construction Best Management Practices. To reduce potentially significant erosion and siltation, the City and/or its selected contractor(s) shall obtain a Stormwater Pollution Prevention Permit (SWPPP) and implement Best Management Practices and erosion control measures as required by the San Francisco RWQCB. Best Management Practices to reduce erosion and siltation shall include the following measures: Avoidance of construction activities during inclement weather; limitation of construction access routes and stabilization of access points; stabilization of cleared, excavated areas by providing vegetative buffer strips, providing plastic coverings, and applying ground base on areas to be paved; protection of adjacent properties by installing sediment barriers or filters, or vegetative buffer strips; stabilization and prevention of sediments from surface runoff from discharging into storm drain outlets; use of sediment controls and filtration to remove sediment from water generated by dewatering; and returning all drainage patterns to pre-existing conditions.

Mitigation Measure HWQ-2: Avoid cutting through the creeks. As described in the Proposed Project/Action description, all creek crossings will be crossed by installing the pipelines on the side of the bridge and above the channel. Construction crews shall avoid entering the stream channels during installation. With these mitigation measures in place, the Proposed Project/Action is unlikely to have a direct and/or indirect adverse effect on this species or its supporting habitat. Once constructed, the operation and maintenance of the Proposed Project/Action will not adversely affect this species.

Mitigation Measure HWQ-3: Implement Best Management Practices. To reduce potentially significant erosion and siltation, the City and/or its selected contractor(s) shall obtain a Stormwater Pollution Prevention Permit (SWPPP) and implement Best Management Practices and erosion control measures as required by the San francisco RWQCB. Best Management Practices to reduce erosion and siltation shall include, at a minimum, the following measures: Avoidance of construction activities during inclement weather; limitation of construction access routes and stabilization of access points; stabilization of cleared, excavated areas by providing vegetative buffer strips, providing plastic coverings, and applying ground base on areas to be paved; protection of adjacent properties by installing sediment barriers or filters, or vegetative buffer strips; stabilization and prevention of sediments from surface runoff from discharging into storm drain outlets; use of sediment controls and filtration to remove sediment from water

generated by dewatering; and returning all drainages to preconstruction conditions. Construction crews shall avoid entering the stream channels during installation.

In addition, the operation of the Proposed Project/Action and application of recycled water will increase salts and nutrient loadings on the soils that could result in significant impacts to adjacent surface and groundwater resources. Rising levels of salts have been observed in the Livermore Valley Groundwater Basin (Main Basin) over the past several decades and are generally measured as Total Dissolved Solids (TDS). The main sources of salt loading to the 250,000 acre-foot capacity Main Basin are landscape irrigation with potable and recycled water, recharge operations using surface water from the State Water Project (SWP), and runoff from the local arroyos. Salts may also be naturally leached from the marine sediments in the northwestern area of the Valley. The City's existing potable water supply includes both groundwater and surface water resources totaling approximately 16,500 afy and which currently has a combined average TDS level of approximately 375 milligrams per liter (mg/l)[2]. At build out, the Proposed Project/Action would offset approximately 2,500 afy of that supply with recycled water for irrigation purposes. The proposed new recycled water supply would have an average TDS level of approximately 597 mg/l[3] which would result in an approximately 60 percent increase in salt loading for the 2,500 afy of water to be used for irrigation purposes. It is assumed that with proper irrigation best management practices, recycled water operations would have an 80 percent irrigation efficiency, meaning that 80 percent of the applied recycled water would be lost through evapotranspiration and the remaining 20 percent of the flow would percolate through the root zone. All of the applied salts are assumed to remain with the 20 percent flow and would percolate into the groundwater as a result of winter rains. The increased salt loading would result in approximately 675 tons per year. However, in context to the overall Main Basin that has a capacity of 250,000 acre-feet, this incremental increase is not considered to be a significant impact (i.e. 0.27 percent). Also, recycled water has higher amounts of nitrogen, phosphorus, and potassium than potable supplies. Thus, recycled water would help alleviate the need to use fertilizers that are more readily applied if potable supplies are used for irrigation and which are not accounted for in its TDS calculations. Further, with the implementation of the following recycled water best management practices, any of these impacts can be further reduced and remain to be less-than-significant.

Mitigation Measure HWQ-4: Implement Recycled Water Best Management Practices. In order to help reduce the potential effects of increased salt loading potential as a result of using recycled water, the City shall:

- Apply water consistent with Title 22 requirements and in amounts (frequency and intensity) which meet the demands of the plant (agronomic rates), but not in excessive amounts such that salts buildup in the soil beyond the root zone and/or otherwise are leached to groundwater;
- Ensure that adequate soil drainage is maintained;
- Ensure that salt-sensitive plants (e.g. Colonial bentgrass) are not to be spray wet;
- Replace salt-sensitive plants with salt-tolerant plants (e.g, Bermudagrass), and
- Addressing sodium and alkalinity concerns through addition of water and soil amendments, including addition of gypsum.

[2] City of Pleasanton. *Administrative Draft Feasibility Study, Recycled Water Project*. June 2012.
[3] Dublin San Ramon Services District/East Bay Municipal Utilities District (DERWA). *San Ramon Valley Recycled Water Program, Recycled Water Quality Annual Report*. June 2008.

With the implementation of **Mitigation Measures HWQ-1, HWQ-2, HWQ-3 and HWQ-4**, any water quality impacts as a result of the use of recycled water will be reduced to less-than-significant levels. No additional mitigation measures or demineralization facilities would be required.

(b) **No Impact.** Construction and/or operation of the Proposed Project/Action would not 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. Construction of the Proposed Project/Action would be done primarily within existing roadways and subsurface excavation would be limited to 3-6 feet below surface elevation and would not interfere with groundwater supplies. Once constructed, the pipeline will also not adversely affect groundwater supplies. In fact, the importation of approximately to 2,500 acre-feet of recycled water per year has the potential to offset current groundwater pumping which has the potential to increase local groundwater supplies through an in-lieu recharge basis. Therefore, no adverse impacts are anticipated and no mitigation is required.

(c) **Less-than-Significant Impact with Mitigation.** Construction and/or operation of the Proposed Project/Action would not **s**ubstantially 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 of siltation on- or off-site. As described in the Project Description, the Proposed Project/Action would be located primarily within existing roadways. With the implementation of **Mitigation Measure HWQ-1**, above, the Proposed Project/Action would not significantly alter any existing drainage areas.

(d) **Less-than-Significant Impact with Mitigation.** Construction and/or operation of the Proposed Project/Action would not **s**ubstantially 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 flooding on- or off-site. As described in the Project Description, the Proposed Project/Action would be located within existing roadways. With the implementation of **Mitigation Measure HWQ-1, HWQ-2, and HWQ-3**, above, the Proposed Project/Action would not significantly alter any existing drainage areas.

(e) **No Impact.** The Proposed Project/Action would not result in any new significant impervious surfaces and would not create new areas of low permeability. The Proposed Project/Action would be located primarily within existing roadways. The Proposed Project/Action would be returned to pre-construction conditions and would not increase the impervious surfaces and therefore would not create new areas of low permeability. In addition, the construction of the filtration upgrades would not create a new impervious layer that would significantly affect permeability. As a result, no additional runoff is expected to be generated by the Proposed Project/Action. Therefore, the Proposed Project/Action would not result in exceeding the capacity of existing or planned storm water drainage systems. No impacts would occur and no mitigation is necessary.

(f) **Less-than-Significant Impact with Mitigation.** The Proposed Project/Action would not substantially affect water quality. As discussed earlier, the construction of the Proposed Project/Action could result in minor, temporary, and highly localized soil erosion and siltation issues. However, with the incorporation of **Mitigation Measure HWQ-1, HWQ-2, and HWQ-3** above, potential impacts to water quality would be reduced to less-than-significant levels.

(g) **No Impact.** The Proposed Project/Action would not redirect flood flows or otherwise place housing within a 100-year flood hazard area. No impact is expected and no mitigation is required or necessary.

(h) **No Impact.** The Proposed Project/Action would generally not place exposed structures within a 100-year flood hazard area. The pipeline facilities would be primarily located underground and the filtration upgrades would be located at the existing DSRSD WWTP and out of the 100-year flood hazard area. No impact is expected and no mitigation is required or necessary.

(i) **No Impact.** The Proposed Project/Action would not expose people or structures to a significant risk of loss, injury, or death involving flooding; including flooding as a result of a failure of a levee or dam. No impact is expected and no mitigation is required or necessary.

(j) **No Impact.** The Proposed Project/Action would not expose people or structures to a significant risk of loss, injury, or death involving a seiche or tsunami. In addition, the Proposed Project/Action area is essentially level, with minimal to no potential hazards from mudflows. No impact is expected and no mitigation is required or necessary.

3.9 Land Use and Planning

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

Discussion

(a) **No Impact.** The Proposed Project/Action would not physically divide an established community. The Proposed Project/Action would be primarily constructed within and under existing roadways within the City. The Proposed Project/Action would not result in a disruption, physical division, or isolation of existing residential or open space areas. As a result, no impact is expected and no mitigation is required or necessary.

(b) **No Impact.** The Proposed Project/Action would be constructed within and under existing roadways within the City. The Proposed Project/Action would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project area. In fact, the City and DSRSD have developed strategic plans and policies to encourage the use of recycled water. Therefore, no impacts are anticipated and no mitigation is required.

(c) **No Impact.** The Proposed Project/Action would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. As stated above, the Proposed Project/Action would be constructed within existing roadways within the City. For this reason, no impacts are expected and no mitigation is required or necessary.

3.10 Mineral Resources

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

Discussion

(a) **No Impact.** The Proposed Project/Action site is not located on a site that is identified as a significant source of mineral resources. Specifically, the Proposed Project/Action is not located in an area identified as containing mineral resources classified MRZ-2 by the State geologist that would be of value to the region and the residents of the state. As a result, the Proposed Project/Action would not result in the loss of availability of known mineral resources; therefore, no impact is expected. No mitigation is required.

(b) **No Impact.** The City's General Plan does not identify any locally important mineral resources or recovery sites in the Proposed Project/Action's area. Further, as discussed in (a), the Proposed Project/Action would be unlikely to result in the loss of availability of a mineral resource deposit that has been identified as a mineral resource of value. Therefore, no adverse impacts are anticipated and no mitigation is required.

3.11 Noise

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

Discussion

(a) **Less-than-Significant Impact with Mitigation.** The Proposed Project/Action has the potential to generate noise during the construction phase through the use of equipment and construction vehicle trips. Construction of the Proposed Project/Action would generate temporary and intermittent noise. Noise levels would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. Back-up beepers associated with trucks and equipment used for material loading and unloading at the staging area would generate significantly increased noise levels over the ambient noise environment in order to be discernable and protect construction worker safety as required by OSHA (29 CFR 1926.601 and 29 CFR 1926.602). Residences and/or businesses in the vicinity of the staging area would thus be exposed to these elevated noise levels.

Construction activities associated with the Proposed Project/Action would be temporary in nature and related noise impacts would be short-term. However, since construction activities could substantially increase ambient noise levels at noise-sensitive locations, construction noise could result in potentially significant, albeit temporary, impacts to sensitive receptors. Compliance with the City noise ordinance and implementation of the following mitigation measures is expected to reduce impacts related to construction noise, to a less-than-significant level. The following mitigation measures are proposed:

> **Mitigation Measure NOI-1**: **Limit Construction Hours.** Construction activities will be limited to the least noise-sensitive times and will comply with the City's noise ordinances. Construction, alteration, repair or land development activities shall be allowed on weekdays between the hours of 8 a.m. and 8 p.m., on Saturdays between the hours of 10 a.m. and 6 p.m. Construction activities shall not exceed the outdoor ambient sound level (dBA) of 86 dBA.
>
> **Mitigation Measure NOI-2: Locate Staging Areas away from Sensitive Receptors.** The City's construction specification shall require that the contractor select staging areas as far as feasibly possible from sensitive receptors.
>
> **Mitigation Measure NOI-3: Maintain Mufflers on Equipment.** The City's construction specifications shall require the contractor to maintain all construction equipment with manufacturer's specified noise-muffling devices.
>
> **Mitigation Measure NOI-4: Idling Prohibition and Enforcement.** The City shall prohibit and enforce unnecessary idling of internal combustion engines. In practice, this would mean turning off equipment if it will not be used for five or more minutes.
>
> **Mitigation Measure NOI-5: Equipment Location and Shielding.** Locate all stationary noise-generating construction equipment such as air compressors as far as possible from homes and businesses.

With the incorporation of the above mitigation measures, noise impacts as result of construction-related activities of the Proposed Project/Action would be considered less-than-significant.

Once constructed, the Proposed Project/Action would not create any new sources of operational noise. Therefore, operation of the pipeline would not result in any significant noise impacts. No mitigation is required.

(b) **Less-than-Significant Impact with Mitigation.** Operation of the Proposed Project/Action would not result in exposing people to or generating excessive groundborne vibration or noise impacts. Construction of the Proposed Project/Action could likely result in minor and temporary increases in groundborne vibration or noise, however, construction activities would be temporary. With the incorporation of **Mitigation Measures NOI-1 through NOI-5** impacts associated with the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels would be reduced to a less-than-significant level.

(c) **No Impact.** The operation of the Proposed Project/Action would not increase noise in and around the Project area. Once constructed, the operation of the pipeline facilities would not result in any noise. The Proposed Project/Action would not cause a permanent increase in ambient noise levels in the project vicinity above levels existing without the Project. Therefore, no impacts would occur and no mitigation is required.

(d) **Less-than-Significant Impact with Mitigation.** Project construction activities may lead to a temporary increase in ambient noise levels in the project vicinity above levels existing without

the project. With the implementation of **Mitigation Measures NOI-1 through NOI-5** impacts resulting in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be reduced to a less-than-significant level.

(e) **Less-than-Significant Impact.** The Proposed Project/Action is located within two miles of the Livermore Municipal Airport. However, construction and/or operation of the Proposed Project/Action would not adversely affect an airport or airport operations, including, noise, take-offs, landings, flight patterns, safety, light, navigation, or communications between aircraft and the control tower within the Project area. The Proposed Project/Action would not expose people residing or working in the Project area to excessive noise levels. Any potential impacts are considered to be less-than-significant. No specific mitigation is required.

(f) **Less-than-Significant Impact.** The Proposed Project/Action is located within two miles of the Livermore Municipal Airport. In addition, there might be private airstrips in the vicinity of the Proposed Project/Action. However, construction and/or operation of the Proposed Project/Action would not adversely affect an airport or airport operations, including, noise, take-offs, landings, flight patterns, safety, light, navigation, or communications between aircraft and the control tower within the Project area. The Proposed Project/Action would not expose people residing or working in the Project area to excessive noise levels. Any potential impacts are considered to be less-than-significant. No specific mitigation is required.

3.12 Population and Housing

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

Discussion

(a) **No Impact.** The Proposed Project/Action would not induce population growth either directly or indirectly. The Proposed Project/Action would be to serve the City with up to 2,500 afy of tertiary treated recycled water for irrigation purposes. This would help supplement the City's current groundwater supplies, but would not be a sufficient supply to induce urban growth in the area. In addition, construction, operation, and maintenance would not result in any substantial increase in numbers of permanent workers/employees. Therefore, no impacts are anticipated and no mitigation is required.

(b) **No Impact.** The Proposed Project/Action would not result in displacing substantial numbers of existing housing or necessitating the construction of replacement housing elsewhere. The Proposed Project/Action would be constructed within existing roadways and/or utility corridors within commercial, industrial, and residential zonings within the City. Construction of the Proposed Project/Action would avoid the need to demolish any existing houses and would not affect any other housing structures. As a result, the Proposed Project/Action would not displace existing housing, and therefore, no impacts are anticipated.

(c) **No Impact.** The Proposed Project/Action would not displace substantial numbers of people necessitating the construction of replacement housing elsewhere. The Proposed Project/Action would be constructed within existing roadways within the City. Construction of the Proposed Project/Action would avoid the need to demolish existing housing and other housing structures. As a result, the Proposed Project/Action is not expected to displace people from their homes. Therefore, no impacts are anticipated and no mitigation is required.

3.13 Public Services

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

Discussion

(a) **No Impact.** The Proposed Project/Action will not generate population growth and the operation and maintenance of the Proposed Project/Action would not be labor intensive. In addition, the Proposed Project/Action would not increase the demand for the kinds of public services that would support new residents, such as schools, parks, fire, police, or other public facilities. As a result, no impacts are anticipated and no mitigation is required.

3.14 Recreation

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

Discussion

(a) **No Impact.** The Proposed Project/Action will not contribute to population growth. Therefore, the Proposed Project/Action will not 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. As a result, no impact is expected and no mitigation is required.

(b) **No Impact.** The Proposed Project/Action does not include or require construction or expansion of recreational facilities. Furthermore, as discussed in (a), the Proposed Project/Action will not increase the demand for recreational facilities. As a result, no impact is expected and no mitigation is required.

3.15 Socioeconomics

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the Project/Action:				
a) Result in any adverse socioeconomic effects?	☐	☐	☐	☒
b) Conflict with Executive Order 12898 (Environmental Justice) policies?	☐	☐	☐	☒
c) Affect Indian Trust Assets?	☐	☐	☐	☒

Discussion

(a) **No Impact.** The Proposed Project/Action would not have any adverse socioeconomic effects. The Proposed Project/Action would involve the construction and operation of a recycled water system to supplement the City's surface and groundwater supplies. This would ensure a reliable, long-term water supply that would help support the existing and future irrigation activities within the City and which would be considered a beneficial socioeconomic effect. The City is pursuing several funding mechanisms that would include applying for state and federal grants and loans to help reduce the cost of the project. In addition, the City would repay any loans by charging a fee to users for the use of the recycled water. It is assumed that the project costs would result in an increase in costs. However, the additional project costs would not adversely affect any minority or low-income populations and/or adversely alter the socioeconomic conditions of populations that reside within the City. As a result, the Proposed Project/Action would not have any adverse socioeconomic effects.

(b) **No Impact.** Executive Order 12898 requires each federal agency to achieve environmental justice as part of its mission, by identifying and addressing disproportionately high and adverse human health on environmental effects, including social and economic effects of its programs, policies, and activities on minority populations and low-income populations of the United States. The Proposed Project/Action would involve the construction and operation of a recycled water system to deliver supplemental water to the region to help protect and enhance the existing irrigation practices within the City. The Proposed Project/Action would primarily occur in existing roadways in a highly urbanized area. The Proposed Project/Action does not propose any features that would result in disproportionate adverse human health or environmental effects, have any physical effects on minority or low-income populations, and/or alter socioeconomic conditions of populations that reside or work within the City and vicinity.

(c) **No Impact.** The Proposed Project/Action would not have any adverse effects on Indian Trust Assets (ITA). ITAs are legal interests in property or rights held by the United States for Indian Tribes or individuals. Trust status originates from rights imparted by treaties, statutes, or executive orders. Examples of ITAs are lands, including reservations and public domain allotments, minerals, water rights, hunting and fishing rights, or other natural resources, money or claims. Assets can be real property, physical assets, or intangible property rights. ITAs cannot be sold, leased, or otherwise alienated without federal approval. ITAs do not include things in which

a tribe or individuals have no legal interest such as off-reservation sacred lands or archaeological sites in which a tribe has no legal property interest. No ITAs have been identified within the City and in the construction areas of the Proposed Project/Action. As a result, the Proposed/Action would have no adverse effects on ITAs.

3.16 Traffic and Transportation

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the Proposed Project/Action:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location which results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐

Discussion

(a) **Less-than-Significant Impact with Mitigation.** The Proposed Project/Action would be primarily constructed within existing roadways within the City. Construction would temporarily disrupt transportation and circulation patterns in the vicinity of the project thus disrupting local vehicle, bicycle, and pedestrian traffic along the haul routes. Although construction-generated traffic would be temporary during peak excavation and earthwork activities, average daily truck trips would be 40 round-trip truck trips per day. The primary impacts from the movement of trucks would include short-term and intermittent lessening of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles. The following mitigation measures are proposed:

Mitigation Measure TRA-1: Prepare and Implement Traffic Control Plan. As is consistent with existing policy, the City shall require the contractor to prepare and

implement effective traffic control plans to show specific methods for maintaining traffic flows. Examples of traffic control measures to be considered include: 1) use of flaggers to maintain alternating one-way traffic while working on one-half of the street; 2) use of advance construction signs and other public notices to alert drivers of activity in the area; 3) use of "positive guidance" detour signing on alternate access streets to minimize inconvenience to the driving public; 4) provisions for emergency access and passage; and 5) designated areas for construction worker parking.

Mitigation Measure TRA-2: Return Roads to Pre-construction Condition. Following construction, the City shall ensure that road surfaces that are damaged during construction are returned to their pre-construction condition or better.

With the incorporation of the above mitigation measures, potential temporary impacts are considered to be less-than-significant.

(b) **Less-than-Significant Impact with Mitigation.** As discussed above in (a), construction activities of the Proposed Project/Action may result in increased vehicle trips. This could temporarily exceed, either individually or cumulatively, existing level of service standards. However, the Proposed Project/Action would not result in any long-term degradation in operating conditions or level of service on any project roadways. With the implementation of **Mitigation Measure TRA-1** impacts associated with exceeding level of service standards would be reduced to a less-than-significant level.

(c) **No Impact.** The Proposed Project/Action does not involve use of air transit, nor is it expected to cause any change in air traffic patterns. No impact is expected and no mitigation is required.

(d) **No Impact.** The Proposed Project/Action does not propose to make changes to roadways that would create road hazards or alter design features developed to mitigate such hazards. No impacts are expected and no mitigation is required.

(e) **Less-than-Significant Impact with Mitigation.** The Proposed Project/Action would have temporary effects on traffic flow, due to added truck traffic during construction which could result in delays for emergency vehicle access in the vicinity of the project. Implementation of **Mitigation Measure TRA-1** would require the contractor to establish methods for maintaining traffic flow in the project vicinity and minimizing disruption to emergency vehicle access to land uses along the truck route. Implementation of **Mitigation Measure TRA-1** would also ensure potential impacts associated with temporary effects on emergency access would be mitigated to a less-than-significant level.

(f) **Less-than-Significant Impact.** Project-related construction activities would require additional parking for workers and equipment on a temporary basis. However, sufficient space exists within the construction easement to accommodate parking needs for construction workers and equipment. As a result, no impacts are anticipated and no mitigation is required.

(g) **Less-than-Significant Impact.** The construction activities associated with the Proposed Project/Action would be short term and would not conflict with adopted policies, plans, or programs supporting alternative transportation. Also once constructed, the Proposed Project/Action would not conflict with adopted policies, plans, or programs supporting alternative transportation. Any short-term effects would be considered less-than-significant.

3.17 Utilities and Service Systems

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

Discussion

(a) **No Impact.** The Proposed Project/Action would not exceed waste water treatment requirements of the applicable Regional Water Quality Control Board. Therefore, no impacts are anticipated and no mitigation is required.

(b) **Less-than-Significant Impact.** The Proposed Project/Action would involve the construction of a water recycling system to serve the City. This would also include upgrading the tertiary filtration system at DSRSD's existing WWTP. However, any impacts associated with the construction and/or operations are considered to be less-than-significant and no mitigation is required.

(c) **No Impact.** The Proposed Project/Action would not require or result in the construction of additional off-site storm water drainage facilities. Therefore, no impacts are expected and no mitigation is required.

(d) **Less-than-Significant Impact.** Under the Proposed Project/Action the City will be receiving tertiary treated water from DSRSD's existing WWTP. This would be a new water supply and would require the City purchasing this new water supply from DSRSD. However, any impacts are considered to be less-than-significant and no mitigation is required.

(e) **Less-than-significant Impact.** Under the Proposed Project/Action, the City will be receiving tertiary treated water from DSRSD's existing WWTP. This would require upgrading DSRSD's tertiary filtration system. However, any impacts are considered to be less-than-significant and no mitigation is required.

(f) **No Impact.** Construction and operation of the Proposed Project/Action would not generate a significant amount of solid wastes. No impacts are expected to existing landfills and no mitigation is required.

(g) **No Impact.** The Proposed Project/Action would comply with all relevant federal, state, and local statutes and regulations related to solid waste. Therefore, there are no anticipated impacts and no mitigation is required.

3.18 Mandatory Findings of Significance

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the Proposed Project/Action:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have impacts that would be individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

(a) Less-than-Significant Impact with Mitigation. With the incorporation of the previously identified mitigation measures, the Proposed Project/Action will not substantially degrade the quality of the environment, 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. Any impacts from the Proposed Project/Action in these areas are considered here to be less-than-significant with the implementation and incorporation of the above mentioned mitigation measures.

(b) Less-than-Significant Impact with Mitigation. No direct project-specific significant effects were identified that could not be mitigated to a less-than-significant level. Mitigation Measures incorporated herein mitigate any potential contribution to cumulative (as well as direct) impacts associated with these environmental issues. Therefore, the Proposed Project/Action does not have impacts that are individually limited, but cumulatively considerable.

(c) Less-than-Significant Impact with Mitigation. As a result of mitigation included in this environmental document, the Proposed Project/Action would not result in substantial adverse effects to humans, either directly or indirectly.

Chapter 4 Determination

On the basis of this initial evaluation for the City of Pleasanton's Recycled Water Project:

☐ I find that the Proposed Project/Action COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the Proposed Project/Action could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the City. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that the Proposed Project/Action MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Proposed Project/Action could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project/Action, nothing further is required.

Signature	Date
Scott Lines	Assistant Director
Printed Name	Title

Chapter 5 Bibliography

Detailed below are the sources consulted and reviewed during the preparation of this environmental issues and constraints document.

- Bay Area Air Quality Management District. *CEQA Guidelines*. December 1999.
- California Department of Forestry and Fire Protection. *Fire Severity Mapping*. April 2014
- California Department of Toxic Substances. *Envirostor database and GIS System*. April 2014
- City of Pleasanton. *Final Feasibility Study, Recycled Water Project*. July 2013.
- City of Pleasanton. *General Plan EIR*. June 2009.
- City of Pleasanton. *2010 Urban Water Management Plan*. June 2011
- Dublin San Ramon Services District/East Bay Municipal Utilities District (DERWA*)*. *San Ramon Valley Recycled Water Program*, *Final Impact Report*. December 1996.
- Dublin San Ramon Services District/East Bay Municipal Utilities District (DERWA). *San Ramon Valley Recycled Water Program, Recycled Water Quality Annual Report*. June 2008.
- State Water Resources Control Board. *Staff Report and Certified Regulatory Program Environmental Analysis for the State Water Resources Control Board's Recycled Water Policy.* 2009.
- Zone 7 Water Agency. Salt Management Plan. May 2004.

Appendix A

Air Quality Emissions Calculations

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> City of Pleasanton Recycled Water Project Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	19.3	72.3	74.4	5.9	5.3	0.6	4.9	4.7	0.1	9,841.7
Grading/Excavation	18.7	74.4	74.0	5.9	5.3	0.6	4.9	4.7	0.1	10,377.2
Drainage/Utilities/Sub-Grade	15.5	65.2	63.5	5.0	4.4	0.6	4.1	4.0	0.1	9,612.7
Paving	13.3	58.4	50.5	3.9	3.9	-	3.5	3.5	-	7,830.7
Maximum (pounds/day)	19.3	74.4	74.4	5.9	5.3	0.6	4.9	4.7	0.1	10,377.2
Total (tons/construction project)	8.9	36.3	35.4	2.8	2.5	0.3	2.3	2.3	0.1	5,134.1

Notes:

Project Start Year ->	2013
Project Length (months) ->	48
Total Project Area (acres) ->	12
Maximum Area Disturbed/Day (acres) ->	0
Total Soil Imported/Exported (yd^3/day)->	20

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> City of Pleasanton Recycled Water Project Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	8.8	32.9	33.8	2.7	2.4	0.3	2.2	2.2	0.1	4,473.5
Grading/Excavation	8.5	33.8	33.6	2.7	2.4	0.3	2.2	2.2	0.1	4,716.9
Drainage/Utilities/Sub-Grade	7.0	29.6	28.9	2.3	2.0	0.3	1.9	1.8	0.1	4,369.4
Paving	6.0	26.5	22.9	1.8	1.8	-	1.6	1.6	-	3,559.4
Maximum (kilograms/day)	8.8	33.8	33.8	2.7	2.4	0.3	2.2	2.2	0.1	4,716.9
Total (megagrams/construction project)	8.1	32.9	32.1	2.5	2.3	0.2	2.1	2.1	0.1	4,656.8

Notes:

Project Start Year ->	2013
Project Length (months) ->	48
Total Project Area (hectares) ->	5
Maximum Area Disturbed/Day (hectares) ->	0
Total Soil Imported/Exported ($meters^3$/day)->	15

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Appendix B

Potential for Special Status Species to Occur in Project Area

Appendix B Potential for Special-Status Species to Occur in the Proposed Project/Action Study Area				
Species	**Status**	**Habitat**	**Potential for Occurrence**	**Recommendations**
Plants				
Amsinckia grandiflora large-flowered fiddleneck	FE, FX, SE	The last remaining native populations are on the grasslands near Lawrence Livermore National Laboratory in Alameda County, California. Other populations have been established in nearby protected areas.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Arctostaphylos pallida pallid manzanita (=Alameda or Oakland Hills manzanita)	FT, SE	The plants are found in manzanita chaparral habitat of the montane chaparral and woodlands ecosystem, and is frequently surrounded by oak woodlands and other chaparral shrubs.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Atriplex joaquinana San Joaquin spearscale	1B.2	It is endemic to California, where it grows in alkaline soils in the Sacramento-San Joaquin River Delta and adjacent parts of the Central Valley and eastern Central Coast Ranges.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Chorizanthe robusta var. robusta robust spineflower	FE	Known only from southern Santa Cruz and Monterey Counties.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Clarkia franciscana Presidio clarkia	FE, SE	It is endemic to the San Francisco Bay Area of California, where it is known only from two populations at the Presidio of San Francisco and three occurrences in Oakland.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Cordylanthus palmatus palmate-bracted bird's-beak	FE,SE	It is endemic to the Central Valley of California, where it is known from a few remaining occurrences in the rare alkali sink habitat type. The plant is limited to seasonally-flooded flats with saline and alkaline soils, where it grows with other halophytes such as iodine bush and alkali heath.	Unlikely. Suitable habitat not present in the Study Area. .	No further actions are recommended for this species.
Holocarpha macradenia Santa Cruz tarplant	FT, FX, SE	Inhabits terraced locations of coastal or valley prairie grasslands with underlying sandy clay soils.	Unlikely. Site is regularly disturbed by human activity.	No further actions are recommended for this species.
Lasthenia conjugens Contra Costa goldfields	FE, RP, List 1B	Mesic sites in cismontane woodland, alkaline playas, valley and foothill grassland. Vernal pools, swales, or low	Unlikely. Site is regularly disturbed by human activity.	No further actions are recommended for this species.

Appendix B Potential for Special-Status Species to Occur in the Proposed Project/Action Study Area				
Species	**Status**	**Habitat**	**Potential for Occurrence**	**Recommendations**
		depressions. 1-445 m. Blooms March-June.		
Layia carnosa beach layia	FE, SE	It is endemic to California, where it lives in beach habitat.	Unlikely. Site is regularly disturbed by human activity.	No further actions are recommended for this species.
Plagiobothrys glaber hairless popcornflower	1A	Presumed Extinct in California	Unlikely. Presumed extinct in California	No further actions are recommended for this species.
Suaeda californica California sea blite	FE	Confined to saline or alkaline soil habitats, such as coastal salt-flats and tidal wetlands.	Unlikely. Site is regularly disturbed by human activity.	No further actions are recommended for this species.
Mammals				
Reithrodontomys raviventris Salt-marsh Harvest Mouse	FE, SE	Primary habitat in pickleweed dominated saline emergent marshes of San Francisco Bay. Require adjacent upland areas for escape from high tides.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Vulpes macrotis mutica San Joaquin kit fox	FE	Kit foxes favor arid climates, such as desert scrub, chaparral, and grasslands. Good examples of common habitats are sagebrush *Artemisia tridentata* and saltbrush *Atriplex polycarpa*. They can be found in urban and agricultural areas, too.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Birds				
Athene cunicularia burrowing owl	SSC	Burrowing Owls can be found in grasslands, rangelands, agricultural areas, deserts, or any other open dry area with low vegetation.	**Moderate.** Potential exists that they could be located in open spaces near construction activities.	Conduct Pre-construction nesting and breeding surveys.
Charadrius alexandrinus nivosus Western Snowy Plover	FT, SSC, BCC, RP	(Nesting) Federal listing applies only to the Pacific coastal population. Found on sandy beaches, salt pond levees and shores of large alkali lakes. Requires sandy, gravelly or friable soils for nesting.	Unlikely. Suitable open nesting habitat is not present in the Study Area.	No further actions are recommended for this species.
Pelecanus occidentalis californicus California Brown Pelican	FE, SE	Found in estuarine, marine subtidal, and marine pelagic waters along the coast. Nest on rocky or low brushy slopes of undisturbed islands.	Unlikely. Suitable estuarine and subtidal areas not present in the Study Area.	No further actions are recommended for this species.

Appendix B Potential for Special-Status Species to Occur in the Proposed Project/Action Study Area				
Species	**Status**	**Habitat**	**Potential for Occurrence**	**Recommendations**
Rallus longirostris obsoletus California Clapper Rail	FE, SE	Found in tidal salt marshes of the San Francisco Bay. Requires mudflats for foraging and dense vegetation on higher ground for nesting.	Unlikely. The Study Area does not provide extensive dense emergent vegetation for cover, and therefore is unlikely to provide suitable foraging or nesting habitat for this species.	No further actions are recommended for this species.
Sternula antillarum (=Sterna, =albifrons) browni California least tern	FE	The California Least Tern hunts primarily in shallow estuaries and lagoons, where smaller fishes are abundant.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Reptiles				
Masticophis lateralis euryxanthus Alameda whipsnake	FT, ST, X	The California whipsnake, *Masticophis lateralis*, is known to utilize a wide range of habitat types including open desert, California oak woodland, pine forest, chaparral, and associated open landscape habitats.	**Moderate.** Suitable habitat may be present in the Study Area.	Conduct Pre-construction surveys.
Thamnophis gigas Giant garter snake	FT	Generally inhabits marshes, sloughs, ponds, slow moving streams, ditches, and rice fields which have water from early spring through mid-fall, emergent vegetation, open areas and high ground for hibernation and escape cover.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Thamnophis sirtalis tetrataenia San Francisco garter snake	FE	It is endemic to San Mateo County and the extreme northern part of coastal Santa Cruz County in California.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Amphibians				
Ambystoma californiense California Tiger Salamander	FT, FX, SSC	Inhabits annual grass habitat and mammal burrows. Seasonal ponds and vernal pools crucial to breeding.	Unlikely. Annual grassland habitat is limited in the Study Area.	No further actions are recommended for this species.
Rana aurora draytonii California Red-legged Frog	FT, FX, SSC	Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Documented to disperse through upland habitats after rains.	Unlikely. Freshwater habitat in the Study Area is unlikely to provide suitable habitat for this species.	No further actions are recommended for this species

Appendix B Potential for Special-Status Species to Occur in the Proposed Project/Action Study Area				
Species	**Status**	**Habitat**	**Potential for Occurrence**	**Recommendations**
Fish				
Acipenser medirostris Green sturgeon	FT, NMFS	Adults spawn in freshwater and then return to estuarine or marine environments. Preferred spawning habitat occurs in the lower reaches of large rivers with swift currents and large cobble.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Eucyclogobius newberryi Tidewater goby	FE	Shallow waters of bays and estuaries.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Hypomesus transpacificus Delta smelt	FT, FX	Found in large, main channels and open areas of the Bay. Occur from tidal freshwater reaches of the Delta west to eastern San Pablo Bay.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Oncorhynchus kisutch Coho salmon - central CA coast	FE, NMFS	Central and northern Calif. Coastal rivers and drainages.	Unlikely. Believed to be extirpated from San Francisco bay drainages.	No further actions are recommended for this species.
Oncorhynchus mykiss Steelhead, Central California Coast and Central Valley	FT, FX, CSC	Drainages of San Francisco and San Pablo bays, central Calif. Coastal rivers.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Oncorhynchus tshawytscha Central Valley spring-run chinook salmon	FT, FX NMFS	Spawns in the Sacramento and San Joaquin Rivers and their tributaries.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Oncorhynchus tshawytscha Winter-run chinook salmon, Sacramento River	SSC, FE, FX, NMFS	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Invertebrates				
Branchinecta conservatio Conservancy fairy shrimp	FE	Inhabit highly turbid water in vernal pools. Known from six populations in the northern central valley.	Unlikely. Suitable vernal pool habitat is not present in the Study Area.	No further actions are recommended for this species.
Branchinecta longiantenna Longhorn pool fairy shrimp	FE, FX	Inhabit small, clear-water sandstone depression pools, grassy swales, slumps, or basalt-flow	Unlikely. Suitable vernal pool habitat is not present in the Study Area.	No further actions are recommended for this species.

Appendix B Potential for Special-Status Species to Occur in the Proposed Project/Action Study Area				
Species	**Status**	**Habitat**	**Potential for Occurrence**	**Recommendations**
		depression pools.		
Branchinecta lynchi Vernal pool fairy shrimp	FT	Inhabit small, clear-water sandstone depression pools, grassy swales, slumps, or basalt-flow depression pools.	Unlikely. Grassy swales in the Study Area are characterized by a significant grade unlikely to provide suitable habitat for this species.	No further actions are recommended for this species.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT	Occurs in the Central Valley region in association with blue elderberry shrubs. Prefers to lay eggs in elderberry stems greater than 1" in diameter.	Unlikely. No elderberry shrubs were identified in the Study Area and suitable habitat is not present.	No further actions are recommended for this species.
Euphydryas editha bayensis bay checkerspot butterfly	T	Today the only populations known inhabit areas of Santa Clara County.	Unlikely. Suitable habitat is not present in the Study Area.	No further actions are recommended for this species.
Icaricia icarioides missionensis Mission Blue butterfly	E	The Mission Blue depends on a very specific host plant called the lupine.	Unlikely. Suitable habitat is not present in the Study Area.	No further actions are recommended for this species.
Lepidurus packardi Vernal pool tadpole shrimp	FE	Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mudbottomed and highly turbid.	Unlikely. Suitable vernal pool habitat is not present in the Study Area.	No further actions are recommended for this species.
Speyeria callippe callippe Callippe silverspot butterfly	FE	Historically inhabited grasslands ranging over much of the northern San Francisco Bay region, but eventually was known to occur on the east and western sides of San Francisco Bay.	Unlikely. The only known colony now is on San Bruno Mountain on the San Francisco peninsula.	No further actions are recommended for this species.

Key to status codes:
FE Federal Endangered
FT Federal Threatened
FX Federal Critical Habitat
FC Federal Candidate
FD Federal De-listed
FPD Federal Proposed for De-listing
FPT Federal Proposed Threatened
NMFS Species under the Jurisdiction of the National Marine Fisheries Service
BCC USFWS Birds of Conservation Concern
RP Sensitive species included in a USFWS Recovery Plan or Draft Recovery Plan
SE State Endangered

ST State Threatened
SR State Rare
CSC CDFG Species of Special Concern
Draft CSC 4 April 2000 Draft CDFG Species of Special Concern
CFP CDFG Fully Protected Animal
WBWG Western Bat Working Group High Priority species
SLC Species of Local Concern
List 1A CNPS List 1A: Plants presumed extinct in California
List 1B CNPS List 1B: Plants rare, threatened or endangered in California and elsewhere
List 2 CNPS List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3 CNPS List 3: Plants about which CNPS needs more information (a review list)

Appendix C

Federally-listed Biological Assessment Report

THE CITY OF PLEASANTON

Appendix C

Federally-Listed Biological Resources Report



Recycled Water Project

June 2014

SMB ENVIRONMENTAL

Federally-Listed Biological Resources Assessment Report

City of Pleasanton Recycled Water Project

Prepared by:

SMB Environmental, Inc.

June 2014

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Section 1 - Introduction

This section describes the purpose of this assessment and identifies potential federally-listed species and species of concern that could be affected by the implementation of the City of Pleasanton's (City) proposed Recycled Water Project (Proposed Action).

1.1 Purpose of this Assessment

The purpose of this document is to describe potential effects of the City's Proposed Action on those federally listed and proposed species that may occur in the Proposed Action Area. This document conforms to and with the legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C 1536(c) and 50 CFR 402). It is presumed that the U.S. Bureau of Reclamation (USBR) will be the lead agency under NEPA as the City is pursuing federal funding under the U.S. Department of the Interior's Bureau of Reclamation Public Law 102 575, Title XVI Water Reclamation and Reuse Program. In addition, the City is also seeking funds from the State Revolving Fund (SRF) Loan Program that is administered by the State Water Resources Control Board (State Board) on behalf of the U.S. Environmental Protection Agency. This document evaluates the potential direct, indirect, and cumulative effects the Proposed Action may have on federally listed and proposed species, and outlines those potential effects as well as recommended mitigation to reduce potential adverse effects to a less than significant level.

1.2 Species of Concern

Pursuant to Section 7(c) (1) of the Endangered Species Act, SMB obtained a list of federally-listed species potentially found within the Proposed Action Area from the U.S. Fish and Wildlife Service (USFWS) – See Attachment A. This list was also updated using a list provided from the California Natural Diversity Database (April 2014). This document analyzes the potential effects of the Proposed Action upon the following federally-listed and proposed species.

Plant Species

- *Amsinckia grandiflora* (E) (X) large-flowered fiddleneck)
- *Arctostaphylos pallida* (T) pallid manzanita
- *Chorizanthe robusta var. robusta* (E) robust spineflower
- *Clarkia franciscana* (E) Presidio clarkia
- *Cordylanthus palmatus* (E) palmate-bracted bird's-beak
- *Holocarpha macradenia* (T) (X) Santa Cruz tarplant
- *Lasthenia conjugens* (E) (X) Contra Costa goldfields
- *Layia carnosa* (E) beach layia
- *Suaeda californica* (E) California sea blite

Mammals

- *Reithrodontomys raviventris* (E) Salt-marsh Harvest Mouse
- *Vulpes macrotis mutica* (E) San Joaquin kit fox

Birds

- *Athene cunicularia* (T) Burrowing owl

- *Charadrius alexandrines nivosus* (T) Western Snowy Plover
- *Coccyzus americanus occidentalis* (C) Western Yellow-billed Cuckoo
- *Pelecanus occidentalis californicus* (E) California Brown Pelican
- *Rallus longirostris obsoletus* (E) California Clapper Rail
- *Sternula antillarum* (E) California least tern
- *Strix occidentalis caurina* (T) Northern spotted owl

Reptiles

- *Masticophis lateralis euryxanthus* (T) (X) Alameda whipsnake
- *Thamnophis gigas* (E) Giant garter snake
- *Thamnophis sirtalis tetrataenia* (E) San Francisco garter snake

Amphibians

- *Ambystma californiense* (T) (X) California tiger salamander
- *Rana aurora draytonii* (T) (X) California Red-legged frog

Fish

- *Acipenser medirostris* (T) (NMFS) Green sturgeon
- *Eucyclogobius newberryi* (E) Tidewater goby
- *Hypomesus transpacificus* (T) (X) Delta smelt
- *Oncorhynchus kisutch* (E) (NMFS) Coho salmon - Central CA Coast
- *Oncorhynchus mykiss* (T) (X) (NMFS) Steelhead, Central CA Coast /Valley
- *Oncorhynchus tshawytscha* (T) (NMFS) Chinook salmon, Central Valley, spring-run
- *Oncorhynchus tshawytscha* (E) (X) Chinook salmon - Sacramento River, winter-run

Invertebrates

- *Branchinecta conservation* (E) Conservancy fairy shrimp
- *Branchinecta longiantenna* (E) (X) longhorn fairy shrimp
- *Branchinecta lynchi* (T)(X) Vernal pool fairy shrimp
- *Desmocerus californicus dimorphus* (T) Valley elderberry longhorn beetle
- *Euphydryas editha bayensis* (T) bay checkerspot butterfly
- *Icaricia icarioides missionensis* (E) Mission blue butterfly
- *Lepidurus packardi* (T) (X) Vernal pool tadpole shrimp
- *Speyeria callippe callippe* (E) Callippe silverspot butterfly

E= Endangered
T=Threatened
C=Candidate
X=Critical Habitat
PX-Proposed Critical Habitat

Section 2 - Description of Proposed Action

This section provides a description of the Proposed Action including the location and background, purpose and need, construction considerations, and operational considerations.

2.1 Project Location and Background

The City of Pleasanton is located in Alameda County approximately 35 miles southeast of San Francisco, situated at the junction of I-580 and I-680. As shown on Figure 1, the City's water service area encompasses an area of approximately 22 square miles; servicing city residents, commercial customers, and approximately 250 customers in unincorporated Alameda County along Kilkare Road just north of the town of Sunol.

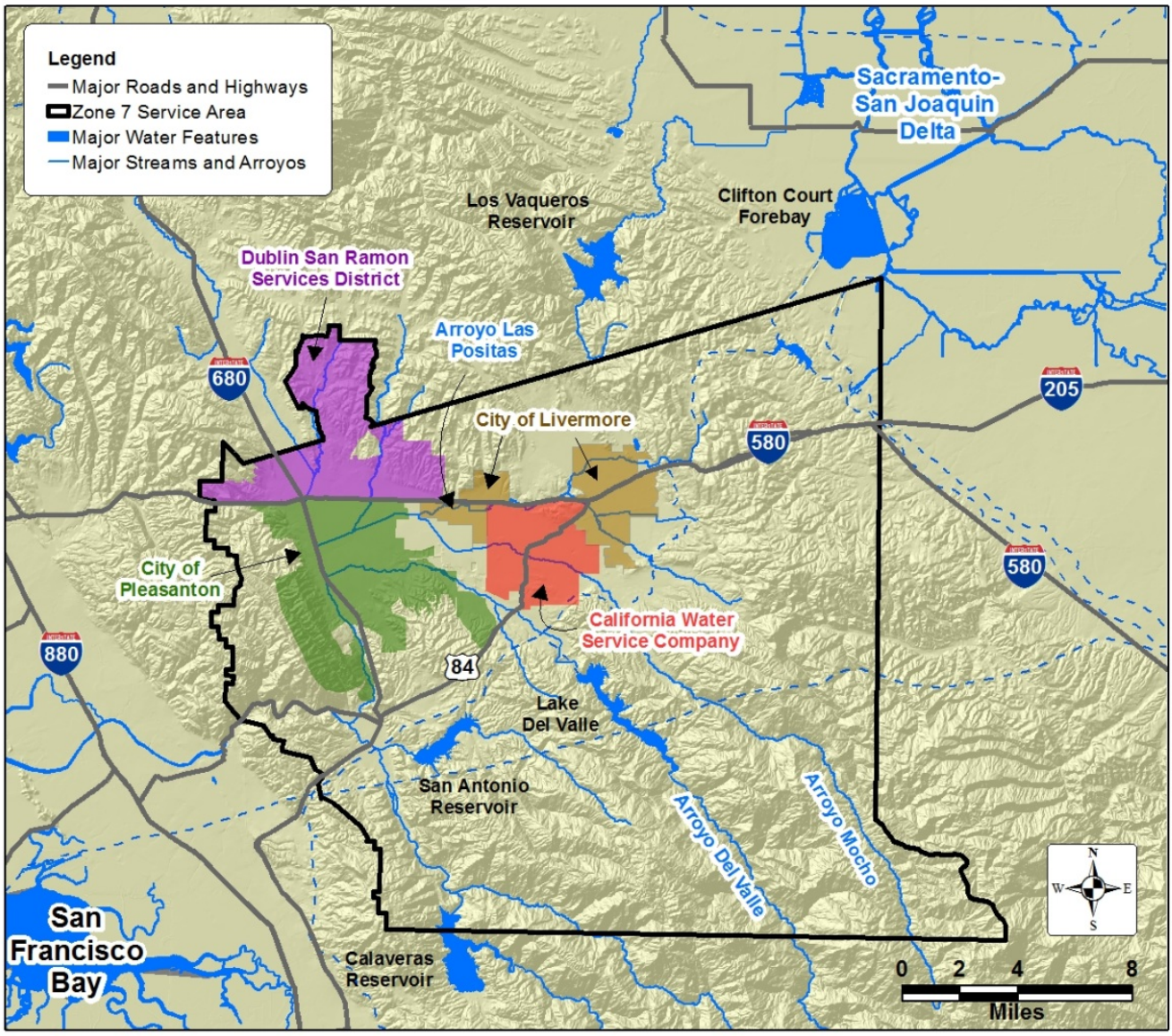
As of 2010, Pleasanton supports a residential population of 69,300. By 2030 Pleasanton's population is projected to grow by another 19 percent to 82,300. The residential sector accounts for the City's largest water consuming sector (61percent), followed by landscape irrigation (27 percent), commercial (12 percent), and lastly industrial sector (<1percent). The importance of efficient and purposeful use of water in California has come under legislative focus through the passage of the Water Conservation Bill of 2009. Under this law, Pleasanton has set the goal of achieving a twenty percent reduction in water consumption by 2020. This equates to a "target" of 195 gallons per capita per day (gpcd), a twenty percent reduction from a baseline of 244 gpcd. Two sources of water supply Pleasanton's service area: 1) local groundwater from three wells owned and operated by the City (approximately 20% of the annual demand), and 2) the remaining portion of water demand is supplied through the purchase of water from Zone 7. According to the City's agreement with Zone 7, Pleasanton pumps a maximum of 3,500 acre-feet per year (afy) from its wells, with a carryover of 700 Acre Feet of unused pumping quota from one year to another.

The City's distribution system currently consists of 22 storage reservoirs with a maximum capacity of 37 million gallons. One of the City's existing storage reservoirs, Tassajara Reservoir, is being considered for conversion to a recycled water storage facility for this Proposed Action. It also includes 14 pressure zones, 14 pump stations, 2,500 fire hydrants and 306 miles of pipelines. This system services approximately 21,700 connections; of which 90 percent are residential customers, 5.5 percent are commercial/institutional customers, 4.5 percent are irrigation customers (for commercial and multi-family residential landscape meters), and less than 1percent are industrial customers.

2.2 Purpose and Need

The purpose of the Proposed Action is to construct and operate a new recycled water system to replace/augment existing irrigation supplies in the City's service area. The development of recycled water service within the City will lessen the demand for Zone 7 Water Agency (Zone 7) potable water supplies and help the City meet the State of California's Water Conservation Act of 2009, which requires a 20 percent reduction in urban per capita water use by the year 2020. Furthermore, the addition of recycled water to the City's water supply portfolio will increase its water system's reliability since recycled water is a local supply within the City's control and is drought-proof.

Figure 1
General Location Map



2.3 Proposed Action Description

As shown in Figure 2, the Proposed Action includes the upgrade and expansion of the Dublin San Ramon Services District's (DSRSD) existing wastewater treatment plant (WWTP) to provide a recycled water supply of approximately 2,500 acre-feet per year (afy) to meet recycled water demand in the City's service area and offset deliveries from the City's groundwater supplies and water supply purchases from Zone 7. All of the WWTP plant upgrades will be included within DSRSD's existing WWTP location and within existing facilities that were previously designed, sized, and constructed for this potential upgrade and expansion. All of the recycled water will be produced by both the City of Livermore Waste Water Treatment facility and the Dublin San Ramon Services District/East Bay Municipal Utilities District Recycled Water Authority (DERWA). The Proposed Action also includes the construction of up to approximately 22-miles (115,200 linear feet) of pipeline ranging in diameter from 6-inches to 18-inches. In addition, the Proposed Action will also include approximately 3.2 miles (16,500) feet of existing pipeline that will be repurposed from abandoned or exiting potable pipelines. Table 1 provides a summary of the pipeline segments by construction phase. The pipeline facilities would be located primarily in existing roadways. In addition, the Proposed Action will also include the conversion of the existing 8 million gallon (MG) Tassajara Reservoir to a recycled water storage facility.

2.4 Construction Considerations

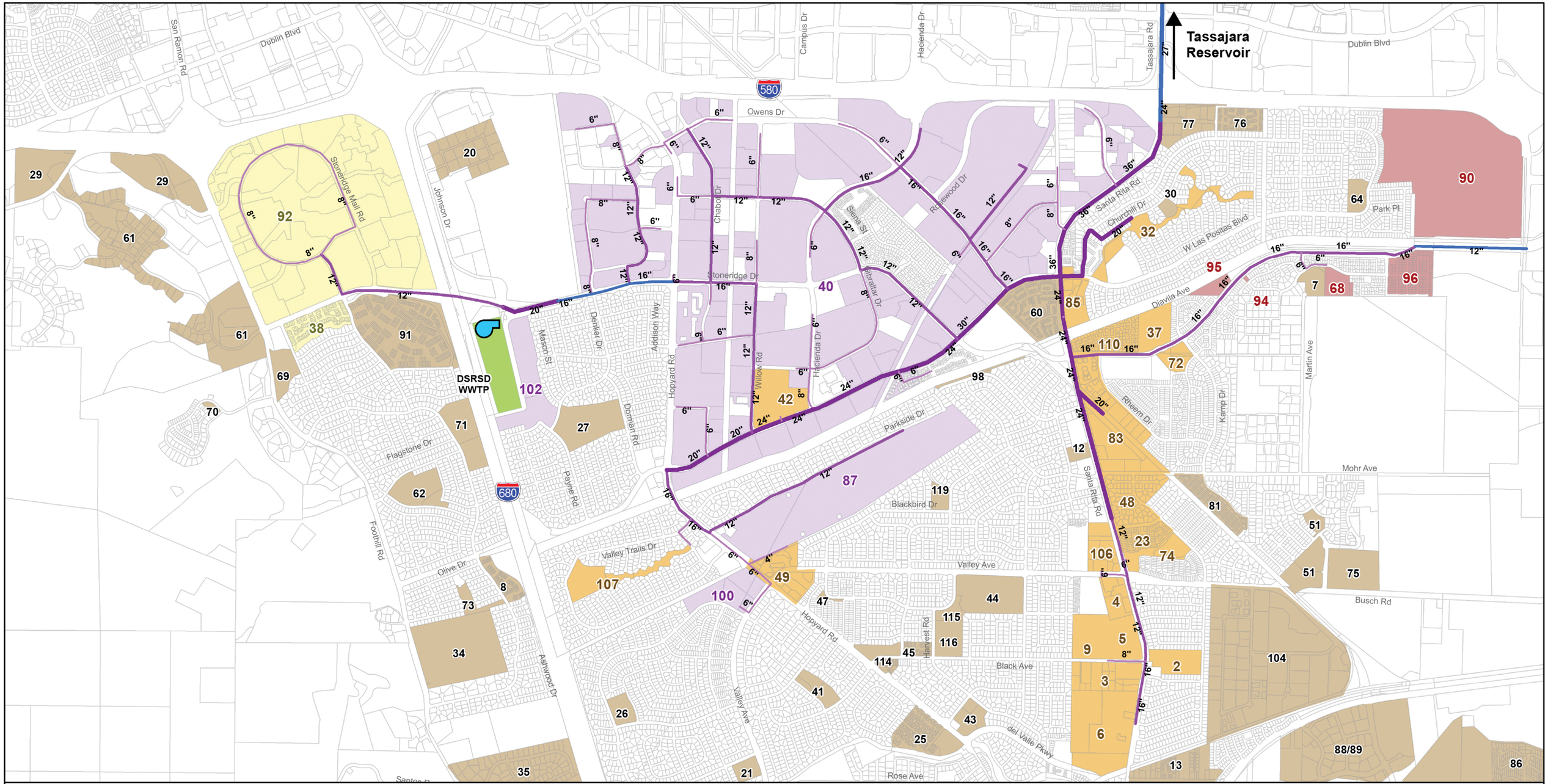
Construction of the Proposed Action facilities is expected to begin in the summer of 2014 and will likely continue into the summer of 2017. Construction work will typically be done within normal working hours, weekdays between the hours of 8 a.m. and 8 p.m., and possibly on Saturdays between the hours of 10 a.m. and 6 p.m. The Proposed Action would be constructed primarily within existing roadways and any damages occurring during construction will be returned to the pre-construction condition or better. Detailed below is a summary of the construction techniques and activities.

- The upgrades to the tertiary filtration system would involve installing parallel filter cells in existing facilities within DSRSD's existing WWTP. As a result, no new construction and excavation would occur.

- Each customer location will require some level of work due to possible meter location changes and pressure differences affecting overspray requirements. On-site plumbing changes may be required to comply with cross connection requirements.

- The majority of the pipelines would be installed in existing roadways using conventional cut and cover construction techniques and installing pipe in open trenches. It is assumed that up to a 50-foot wide construction corridor would be used to help maximize the efficiency during construction. However, in most places a 25-foot construction corridor could be realized, especially for the smaller diameter pipelines. It is anticipated that excavation would range from 2-5 feet wide and would typically be no more than 6-feet deep.

- Any local creek or drainage crossings would be constructed using trenchless techniques and will be done in the dry season and will not occur during inclement weather or between October 15 and April 1.



Legend

DSRSD Facilities

- WWTP
- Recycled Water Pump Station

Proposed Recycled Water Pipelines

- 20" and Larger
- 12" - 16"
- 8" and Smaller

Existing Recycled Water Pipelines

- 20" and Larger
- 12" - 16"

- Parcels

Potential Users

- Served by Phase 1 Alignment
- Served by Phase 2 Alignment
- East Option – Staples Ranch area
- West Option – Stoneridge mall area
- Potential Customers not Considered Feasible at this time

0 1,500 3,000 Feet

Figure 2
Proposed Project/Action Facilities
Recycled Water Project
City of Pleasanton

- Dewatering of the pipeline as a result of hydrostatic testing during construction as well as any dewatering as a result of operations and maintenance activities shall be discharged to land and/or the sanitary sewer system and not into any creeks, drainages, or waterways and shall require prior approval from the San Francisco Bay Regional Water Quality Control Board.

Table 1: Proposed Action Pipeline Segments by Phase

Phase	Diameter (in.)	Length (ft.)	Length (miles)
Phase 1A – Hacienda Area			
New Pipeline	6-16	49,100	9.3
Existing – Santa Rita Road	24	4,000	0.8
Existing – Tassajara Road	27	8,200	1.6
Existing – Stoneridge Drive	16	2,200	0.4
Subtotal		**63,500**	**12.1**
Phase 1B – Hacienda Area			
New Pipeline	4-16	20,700	3.9
New Pipeline (Santa Rita Road)	30	4,000	0.8
Subtotal		**24,700**	**4.7**
Phase 2 – Remaining Feasible Customers			
New Pipeline	4-16	18,800	3.6
Subtotal		**18,800**	**3.6**
West Option – Stoneridge Mall Area			
New Pipeline	4-16	12,100	2.3
Subtotal		**12,100**	**2.3**
East Option – Staples Ranch Area			
New Pipeline	6-18	10,500	2.0
Existing Pipeline – Stoneridge Drive	18	2,100	0.4
Subtotal		**12,600**	**2.4**
New Pipeline - Subtotal		**15,200**	**12.9**
Repurposed Pipeline - Subtotal		**16,500**	**3.2**
TOTAL		**131,700**	**29.1**

Construction activities for this kind of project will typically occur with periodic activity peaks, requiring brief periods of significant effort followed by longer periods of reduced activities. In order to characterize and analyze potential construction impacts, the City has assumed that the project would be constructed by two (2) crews of 10-15 workers each and would proceed at a rate of approximately 500-1,000 feet per day. However, specific details may change or vary slightly. Staging areas for storage of pipe, construction equipment, and other materials would be placed at locations (primarily empty parking lots) that would minimize hauling distances and long-term disruption.

Excavation and grading activities would be necessary for construction of the Proposed Action. Excavated materials resulting from site preparation would either be used on-site during construction or disposed of at a fill area authorized by the City. It is not anticipated that any soils would be imported for this project. Additional truck trips would be necessary to deliver materials, equipment, and asphalt-concrete to the site. During peak excavation and earthwork activities, the Proposed Action could generate up to 40 round-trip truck trips per day. In support of these activities and for the assumptions for this document, the types of equipment that may be used at any one time during construction may include, but not limited to:

- Track-mounted excavator
- Backhoe
- Grader
- Crane
- Dozer
- Compactor
- Trencher/boring machine
- End and bottom dump truck
- Front-end loader
- Water truck
- Flat-bed delivery truck
- Forklift
- Compressor/jack hammer
- Asphalt paver & roller
- Street sweeper

It is recognized that details of the construction activities and methods may change slightly as the specific details will be developed during final design and by the selected contractor. However, this description provides sufficient information to base the conclusions to probable environmental impacts associated with construction activities for this kind of project. Therefore, as long as the construction methods are generally consistent with these methods and do not conflict with any of the City's design standards or established ordinances, and does not create any new potential environmental impacts that are not described within this document, then no new environmental analyses will likely be required for any minor change in construction activities, timing, and/or schedule.

2.5 Compliance with CCR Title 22 and State Board's Recycled Water Policy

The Proposed Action will be designed and operated in accordance with the applicable requirements of CCR Title 22 and any other state or local legislation that is currently effective or may become effective as it pertains to recycled water. The State Board adopted a Recycled Water Policy (RW Policy) in 2009 to establish more uniform requirements for water recycling throughout the State and to streamline the

permit application process in most instances. As part of that process, the State Board prepared an Initial Study and Mitigated Negative Declaration for the use of recycled water. The newly adopted RW Policy includes a mandate that the State increase the use of recycled water over 2002 levels by at least 1,000,000 AFY by 2020 and by at least 2,000,000 AFY by 2030. Also included are goals for storm water reuse, conservation and potable water offsets by recycled water. The onus for achieving these mandates and goals is placed both on recycled water purveyors and potential users. The State Board has designated the Regional Water Quality Control Boards as the regulating entities for the Recycled Water Policy. In this case, the San Francisco Bay Regional Water Quality Control Board (San Francisco RWQCB) is responsible for permitting recycled water projects throughout the San Francisco Bay Area and including the City of Pleasanton.

The Proposed Action will be provided high quality unrestricted use tertiary treated recycled water from DERWA and the City of Livermore Waste Water Treatment Facility and be made available to users within the City. All irrigation systems will be operated in accordance with the requirements of Title 22 of the CCR, the State Board Recycled Water Policy, and any other local legislation that is effective or may become effective as it pertains to recycled water and any reclamation permits issued by the San Francisco RWQCB. Reclamation permits typically require the following:

- Irrigation rates will match the agronomic rates of the plants being irrigated;
- Control of incidental runoff through the proper design of irrigation facilities;
- Implementation of a leak detection program to correct problems within 72 hours or prior to the release of 1,000 gallons whichever occurs first;
- Management of ponds containing recycled water to ensure no discharges; and
- Irrigation will not occur within 50 feet of any domestic supply wells, unless certain conditions have been met as defined in Title 22.

2.6 Operational and Maintenance Plans

The City does not currently, but intends to, have operations, maintenance, and support staff to distribute recycled water. The City has completed operations, maintenance, and treatment agreements with the City of Livermore and DERWA to provide the City of Pleasanton with recycled water. As it is currently agreed, the City of Livermore and DERWA would operate and maintain the treatment portion for delivery of recycled water to the City of Pleasanton. Pleasanton would require and enforce an irrigation schedule among its users. This arrangement is referred to as a "water master." The 'water master' strategy will vary irrigation schedules in a way that optimizes use of the distribution system. The water master schedule may be modified in the future, but the initial assumptions are outlined below.

- Vineyard Demand Factor - 0.33 AFY/acre
- Landscaping Demand Factor - 2.5 AFY/acre
- Vineyard Irrigation hours (Summer) 6am – 6pm
- Landscape Irrigation hours (Summer) 6pm – 6am
- Summer storage filling 6pm – 6am
- Winter storage filling 24 hours per day

By irrigating using the above scheduling, peak flows are reduced and pipe sizing is optimized. For more detailed information about the water master concept refer to the *2013 City of Pleasanton Recycled Water Feasibility Report*.

Maintenance procedures will include 1 or 2 existing City workers who will routinely inspect the pipeline alignment and connections for leaks and repair facilities on an as needed basis as well as conduct scheduled preventative maintenance procedures to keep the facilities in good working order.

Section 3 – Environmental and Regulatory Setting

This section describes the existing environment within and around the Proposed Action Study Area as it pertains to state and federally-listed species.

3.1 Regulatory Environment

The following discussion identifies federal, state, and local regulations that serve to protect sensitive biological resources relevant to the environmental review process.

3.1.1 Federal Regulations

The following discussion identifies federal regulations that serve to protect sensitive biological resources relevant to the environmental review process.

3.1.1.1 Federal Endangered Species Act

The Secretary of the Interior (represented by the USFWS) and the Secretary of Commerce (represented by the National Marine Fisheries Service, NMFS) have joint authority to list a species as threatened or endangered under the Federal Endangered Species Act (FESA) (United States Code [USC], Title 16, Section 1533[c]). FESA prohibits the "take" of endangered or threatened fish, wildlife, or plants species in areas under federal jurisdiction or in violation of state law, in addition to adverse modifications to their critical habitat. Under FESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The USFWS and NMFS also interpret the definition of "harm" to include significant habitat modification that could result in the take of a species.

If an activity would result in the take of a federally listed species, one of the following is required: an incidental take permit under Section 10(a) of FESA, or an incidental take statement issued pursuant to federal interagency consultation under Section 7 of FESA. Such authorization typically requires various measures to avoid and minimize species take, and to protect the species and avoid jeopardy to the species' continued existence.

Pursuant to the requirements of Section 7 of FESA, a federal agency reviewing a proposed project which it may authorize, fund, or carry out must determine whether any federally listed threatened or endangered species, or species proposed for federal listing, may be present in the project area and determine whether implementation of the proposed project is likely to affect the species. In addition, the federal agency is required to determine whether a proposed project is likely to jeopardize the continued existence of a listed species or any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed or designated for such species (16 USC 1536[3], [4]).

Generally, the USFWS implements FESA for terrestrial and freshwater fish species and the NMFS implements FESA for marine and andromous fish species. USFWS and/or NMFS must authorize projects

where a federally listed species is present and likely to be affected by an existing or proposed project. Authorization may involve a letter of concurrence that the project will not result in the potential take of a listed species, or may result in the issuance of a Biological Opinion that describes measures that must be undertaken to minimize the likelihood of an incidental take of a listed species. A project that is determined by USFWS or NMFS to jeopardize the continued existence of a listed species cannot be approved under a Biological Opinion.

Where a federal agency is not authorizing, funding, or carrying out a project, take that is incidental to the lawful operation of a project may be permitted pursuant to Section 10(a) of FESA through approval of a habitat conservation plan (HCP).

FESA requires the federal government to designate "critical habitat" for any species it lists under the Endangered Species Act. "Critical habitat" is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to the species conservation, and those features that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the regulatory agency determines that the area itself is essential for conservation.

3.1.1.2 Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) (16 USC, Section 703, Supp. I, 1989), as amended by the Migratory Bird Treaty Reform Act, prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. The act addresses whole birds, parts of birds, and bird nests and eggs. For projects that would not cause direct mortality of birds, the MBTA is generally interpreted in CEQA analyses as protecting active nests of all species of birds that are included in the "List of Migratory Birds" published in the Federal Register in 1995 and as amended in 2005. Though the MBTA allows permits to be issued for import and export, banding, scientific collecting, taxidermy, and rehabilitation, among other reasons, there is no provision in the MBTA that allows for species take related to creation or other development (Code of Federal Regulations, Title 50: Wildlife and fisheries Part 21; Migratory Bird Permits).

3.1.1.3 Federal Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle…[or any golden eagle], alive or dead, or any part, nest, or egg thereof." The act defines "take" as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb."

3.1.1.4 River and Harbor Act and Clean Water Act

The Secretary of the Army (represented by the Corps of Engineers [USACE]) has permitting authority over activities affecting waters of the United States under Section 10 of the River and Harbors Act (33 USC 403) and Section 404 of the Clean Water (33 USC 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. Section 10 of the River and Harbor Act requires a federal license or permit prior to accomplishing any work in, over, or under navigable[10] waters of the United States, or which affects the course, location, condition or capacity of such waters. Section 404 of the Clean Water Act requires a federal license or permit prior to discharging dredged or fill material into waters of the United States, unless the activity is exempt (33 CFR 324.4) from Section 404 permit requirements (e.g., certain farming and forestry activities). To obtain a federal license or permit, project proponents must demonstrate that they have attempted to avoid the resource or minimize impacts on the resource; however, if it is not possible to avoid impacts or minimize impacts further, the project proponent is required to mitigate remaining project impacts on all federally-regulated waters of the United States.

Section 401 of the Act (33 USC 1341) requires any project proponents for a federal license or permit to conduct any activity including, but not limited to, the creation or operation of facilities, which may result in any discharge into navigable waters of the United States to obtain a certification from the state in which the discharge originates or would originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or would originate, that the discharge will comply with the applicable effluent limitations and water quality standards. A certification obtained for the creation of any facility must also pertain to the subsequent operation of the facility. The responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and its 9 Regional Water Quality Control Boards (RWQCBs).

3.2 Regional Setting

The City of Pleasanton is a city in Alameda County, California, incorporated in 1894. It is a suburb in the San Francisco Bay Area located about 25 miles (40 km) east of Oakland, and 6 miles (9.7 km) west of Livermore. The population was 69,300 at the 2010 census. In 2005 and 2007, Pleasanton was ranked the wealthiest middle-sized city in the United States by the Census Bureau. Pleasanton is home to the headquarters of Safeway Inc., Blackhawk Network, and Ross Stores. Although Oakland is the Alameda County seat, a few county offices and a courthouse are located in Pleasanton. Additionally, the main county jail is in the neighboring city of Dublin. The Alameda County Fairgrounds are located in Pleasanton and are held during the last week of June and the first week of July. Pleasanton Ridge Regional Park is located on the west side of town.

Pleasanton is adjacent to Hayward, Livermore, and Dublin. According to the United States Census Bureau, the city has a total area of 24.3 square miles (63 km^2), of which, 24.1 square miles (62 km^2) of it is land and 0.2 square miles (0.52 km^2) of it (0.63%) is water. On the east side of town on Stanley Blvd.

near the Livermore border is Shadow Cliffs Regional Park, a lake that holds swimming, fishing, boating, and a waterslide. On the west side is the Pleasanton Ridge with the two parks Pleasanton Ridge and Augustin Bernal Park. Much of Pleasanton is drained by the Arroyo del Valle and Arroyo Mocho watercourses. Pleasanton lies along the route of the historic First Transcontinental Railroad. The highest recorded temperature was 115 °F (46.1 °C) in 1950. The lowest recorded temperature was 17 °F (-8.3 °C) in 1990. Urban development has modified most of the native habitat in Alameda County, including the City of Pleasanton and the east bay, creating fragmented and isolated habitats along riparian corridors, designated open space, and parks.

3.2.1 Local Setting

The Proposed Action is located primarily in the City of Pleasanton, California. Due to urbanized conditions, existing vegetative resources are limited to landscaping, ornamental plantings, and agricultural fields. Ornamental and native trees are planted throughout parking lot islands, at the perimeter of commercial buildings, and along streets bordering the Project site. Those trees tall enough to be used by birds such as raptors do not include species typically used by raptors for nesting. Due to high tree canopy fragmentation, the Project site provides limited habitat for wildlife. The number and diversity of species that use the urban habitat is generally low and includes common birds such as rock doves, house sparrows, starlings, American crows, and yellow-billed magpies.

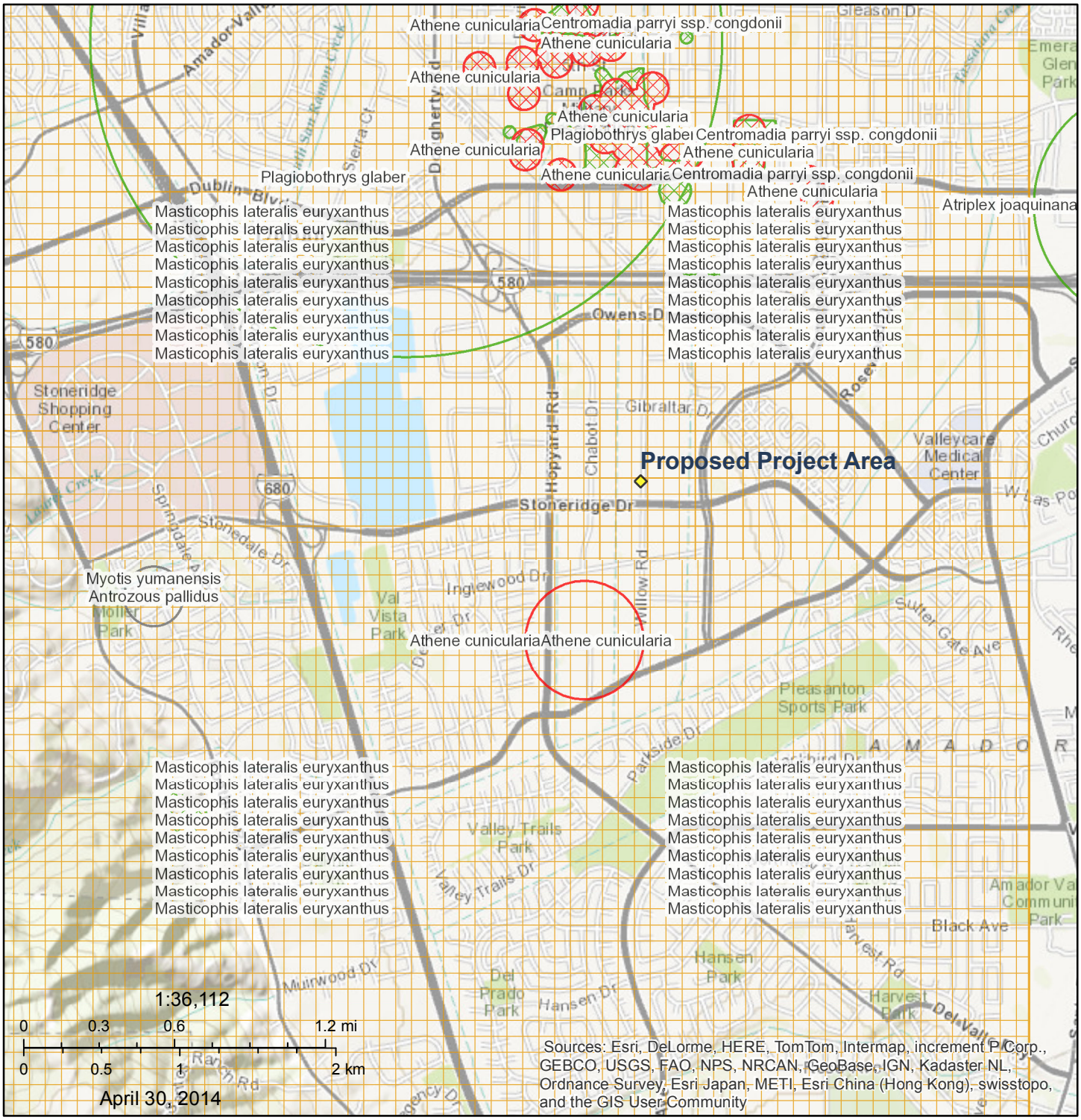
3.2.2 Wetlands and Other Waters of the U.S.

Based upon a literature search and a reconnaissance field study on February 28 and April 15, 2014, there are no known wetlands or vernal pools which exist in the Proposed Action Area. The Proposed Action could cross several local creeks/drainages that could be considered Other Waters of the U.S.

3.3 Potentially Affected Federal Species and Habitats

A record search of CDFW's California Natural Diversity Database (CNDDB) and USFWS' Species List was conducted for the area within a five-mile radius of the Project area to identify previously reported occurrences of state and federal special-status plants and animals. In addition, several field visits of the pipeline alignment were conducted in February 28 and April 15, 2014 to determine the potential for special-status species to occur within the general vicinity of the Proposed Action Study Area (i.e. Construction Area) as described in Chapter 2 – Project Description. These field visits were not intended to be protocol-level surveys to determine the actual absence or presence of special-status species, but were conducted to determine the potential for special-status species to occur within the Proposed Action Area. No special-status species were observed during the field visits. Figure 3 – shows the location of known state and federal listed species within the Proposed Action Area. The potential for each special status species to occur in the Study Area was then evaluated according to the following criteria:

Figure 3 - Location of Federal and State Listed Species in Project Area



- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

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- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Unlikely.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded on the site recently.

Table 2 below lists the state and federally-listed species that have the potential to exist within the Proposed Action Area, along with their preferred habitats, the potential to occur within the Action Study Area, and recommendations to avoid and minimize potential effects to these species.

Table 2
Potential for Special-Status Species to Occur in the Proposed Action Study Area

Species	Status	Habitat	Potential for Occurrence	Recommendations
Plants				
Amsinckia grandiflora large-flowered fiddleneck	FE, FX, SE	The last remaining native populations are on the grasslands near Lawrence Livermore National Laboratory in Alameda County, California. Other populations have been established in nearby protected areas.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Arctostaphylos pallida pallid manzanita (=Alameda or Oakland Hills manzanita)	FT, SE	The plants are found in manzanita chaparral habitat of the montane chaparral and woodlands ecosystem, and is frequently surrounded by oak woodlands and other chaparral shrubs.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Atriplex joaquinana San Joaquin spearscale	1B.2	It is endemic to California, where it grows in alkaline soils in the Sacramento-San Joaquin River Delta and adjacent parts of the Central Valley and eastern Central Coast Ranges.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Chorizanthe robusta var. robusta robust spineflower	FE	Known only from southern Santa Cruz and Monterey Counties.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Clarkia franciscana Presidio clarkia	FE, SE	It is endemic to the San Francisco Bay Area of California, where it is	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.

Table 2
Potential for Special-Status Species to Occur in the Proposed Action Study Area

Species	Status	Habitat	Potential for Occurrence	Recommendations
		known only from two populations at the Presidio of San Francisco and three occurrences in Oakland.		
Cordylanthus palmatus palmate-bracted bird's-beak	FE,SE	It is endemic to the Central Valley of California, where it is known from a few remaining occurrences in the rare alkali sink habitat type. The plant is limited to seasonally-flooded flats with saline and alkaline soils, where it grows with other halophytes such as iodine bush and alkali heath.	Unlikely. Suitable habitat not present in the Study Area. .	No further actions are recommended for this species.
Holocarpha macradenia Santa Cruz tarplant	FT, FX, SE	Inhabits terraced locations of coastal or valley prairie grasslands with underlying sandy clay soils.	Unlikely. Site is regularly disturbed by human activity.	No further actions are recommended for this species.
Lasthenia conjugens Contra Costa goldfields	FE, RP, List 1B	Mesic sites in cismontane woodland, alkaline playas, valley and foothill grassland. Vernal pools, swales, or low depressions. 1-445 m. Blooms March-June.	Unlikely. Site is regularly disturbed by human activity.	No further actions are recommended for this species.
Layia carnosa beach layia	FE, SE	It is endemic to California, where it lives in beach habitat.	Unlikely. Site is regularly disturbed by human activity.	No further actions are recommended for this species.
Plagiobothrys glaber hairless popcornflower	1A	Presumed Extinct in California	Unlikely. Presumed extinct in California	No further actions are recommended for this species.
Suaeda californica California sea blite	FE	Confined to saline or alkaline soil habitats, such as coastal salt-flats and tidal wetlands.	Unlikely. Site is regularly disturbed by human activity.	No further actions are recommended for this species.
Mammals				
Reithrodontomys raviventris Salt-marsh Harvest Mouse	FE, SE	Primary habitat in pickleweed dominated saline emergent marshes of San Francisco Bay. Require adjacent upland areas for escape from high tides.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Vulpes macrotis mutica San Joaquin kit fox	FE	Kit foxes favor arid climates, such as desert scrub, chaparral, and grasslands. Good examples of common habitats are sagebrush *Artemisia tridentata* and saltbrush *Atriplex*	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.

Table 2
Potential for Special-Status Species to Occur in the Proposed Action Study Area

Species	Status	Habitat	Potential for Occurrence	Recommendations
		polycarpa. They can be found in urban and agricultural areas, too.		
Birds				
Athene cunicularia burrowing owl	SSC	Burrowing Owls can be found in grasslands, rangelands, agricultural areas, deserts, or any other open dry area with low vegetation.	**Moderate.** Potential exists that they could be located in open spaces near construction activities.	Conduct Pre-construction nesting and breeding surveys.
Charadrius alexandrinus nivosus Western Snowy Plover	FT, SSC, BCC, RP	(Nesting) Federal listing applies only to the Pacific coastal population. Found on sandy beaches, salt pond levees and shores of large alkali lakes. Requires sandy, gravelly or friable soils for nesting.	Unlikely. Suitable open nesting habitat is not present in the Study Area.	No further actions are recommended for this species.
Pelecanus occidentalis californicus California Brown Pelican	FE, SE	Found in estuarine, marine subtidal, and marine pelagic waters along the coast. Nest on rocky or low brushy slopes of undisturbed islands.	Unlikely. Suitable estuarine and subtidal areas not present in the Study Area.	No further actions are recommended for this species.
Rallus longirostris obsoletus California Clapper Rail	FE, SE	Found in tidal salt marshes of the San Francisco Bay. Requires mudflats for foraging and dense vegetation on higher ground for nesting.	Unlikely. The Study Area does not provide extensive dense emergent vegetation for cover, and therefore is unlikely to provide suitable foraging or nesting habitat for this species.	No further actions are recommended for this species.
Sternula antillarum (=Sterna, =albifrons) browni California least tern	FE	The California Least Tern hunts primarily in shallow estuaries and lagoons, where smaller fishes are abundant.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Reptiles				
Masticophis lateralis euryxanthus Alameda whipsnake	FT, ST, X	The California whipsnake, *Masticophis lateralis*, is known to utilize a wide range of habitat types including open desert, California oak woodland, pine forest, chaparral, and associated open landscape habitats.	**Moderate.** Suitable habitat may be present in the Study Area.	Conduct Pre-construction surveys.
Thamnophis gigas Giant garter snake	FT	Generally inhabits marshes, sloughs, ponds, slow moving streams, ditches, and rice fields which have water from	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.

Table 2
Potential for Special-Status Species to Occur in the Proposed Action Study Area

Species	Status	Habitat	Potential for Occurrence	Recommendations
		early spring through mid-fall, emergent vegetation, open areas and high ground for hibernation and escape cover.		
Thamnophis sirtalis tetrataenia San Francisco garter snake	FE	It is endemic to San Mateo County and the extreme northern part of coastal Santa Cruz County in California.	Unlikely. Suitable habitat not present in the Study Area.	No further actions are recommended for this species.
Amphibians				
Ambystoma californiense California Tiger Salamander	FT, FX, SSC	Inhabits annual grass habitat and mammal burrows. Seasonal ponds and vernal pools crucial to breeding.	Unlikely. Annual grassland habitat is limited in the Study Area.	No further actions are recommended for this species.
Rana aurora draytonii California Red-legged Frog	FT, FX, SSC	Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Documented to disperse through upland habitats after rains.	Unlikely. Freshwater habitat in the Study Area is unlikely to provide suitable habitat for this species.	No further actions are recommended for this species
Fish				
Acipenser medirostris Green sturgeon	FT, NMFS	Adults spawn in freshwater and then return to estuarine or marine environments. Preferred spawning habitat occurs in the lower reaches of large rivers with swift currents and large cobble.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Eucyclogobius newberryi Tidewater goby	FE	Shallow waters of bays and estuaries.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Hypomesus transpacificus Delta smelt	FT, FX	Found in large, main channels and open areas of the Bay. Occur from tidal freshwater reaches of the Delta west to eastern San Pablo Bay.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Oncorhynchus kisutch Coho salmon - central CA coast	FE, NMFS	Central and northern Calif. Coastal rivers and drainages.	Unlikely. Believed to be extirpated from San Francisco bay drainages.	No further actions are recommended for this species.
Oncorhynchus mykiss Steelhead, Central California Coast and Central Valley	FT, FX, CSC	Drainages of San Francisco and San Pablo bays, central Calif. Coastal rivers.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Oncorhynchus	FT, FX	Spawns in the	Unlikely. No suitable	No further actions

Table 2
Potential for Special-Status Species to Occur in the Proposed Action Study Area

Species	Status	Habitat	Potential for Occurrence	Recommendations
tshawytscha Central Valley spring-run chinook salmon	NMFS	Sacramento and San Joaquin Rivers and their tributaries.	habitat occurs within the Study Area.	are recommended for this species.
Oncorhynchus tshawytscha Winter-run chinook salmon, Sacramento River	SSC, FE, FX, NMFS	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	Unlikely. No suitable habitat occurs within the Study Area.	No further actions are recommended for this species.
Invertebrates				
Branchinecta conservatio Conservancy fairy shrimp	FE	Inhabit highly turbid water in vernal pools. Known from six populations in the northern central valley.	Unlikely. Suitable vernal pool habitat is not present in the Study Area.	No further actions are recommended for this species.
Branchinecta longiantenna Longhorn pool fairy shrimp	FE, FX	Inhabit small, clear-water sandstone depression pools, grassy swales, slumps, or basalt-flow depression pools.	Unlikely. Suitable vernal pool habitat is not present in the Study Area.	No further actions are recommended for this species.
Branchinecta lynchi Vernal pool fairy shrimp	FT	Inhabit small, clear-water sandstone depression pools, grassy swales, slumps, or basalt-flow depression pools.	Unlikely. Grassy swales in the Study Area are characterized by a significant grade unlikely to provide suitable habitat for this species.	No further actions are recommended for this species.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT	Occurs in the Central Valley region in association with blue elderberry shrubs. Prefers to lay eggs in elderberry stems greater than 1" in diameter.	Unlikely. No elderberry shrubs were identified in the Study Area and suitable habitat is not present.	No further actions are recommended for this species.
Euphydryas editha bayensis bay checkerspot butterfly	T	Today the only populations known inhabit areas of Santa Clara County.	Unlikely. Suitable habitat is not present in the Study Area.	No further actions are recommended for this species.
Icaricia icarioides missionensis Mission Blue butterfly	E	The Mission Blue depends on a very specific host plant called the lupine.	Unlikely. Suitable habitat is not present in the Study Area.	No further actions are recommended for this species.
Lepidurus packardi Vernal pool tadpole shrimp	FE	Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are	Unlikely. Suitable vernal pool habitat is not present in the Study Area.	No further actions are recommended for this species.

Table 2 Potential for Special-Status Species to Occur in the Proposed Action Study Area				
Species	**Status**	**Habitat**	**Potential for Occurrence**	**Recommendations**
		mudbottomed and highly turbid.		
Speyeria callippe callippe Callippe silverspot butterfly	FE	Historically inhabited grasslands ranging over much of the northern San Francisco Bay region, but eventually was known to occur on the east and western sides of San Francisco Bay.	Unlikely. The only known colony now is on San Bruno Mountain on the San Francisco peninsula.	No further actions are recommended for this species.

Key to status codes:
FE Federal Endangered
FT Federal Threatened
FX Federal Critical Habitat
FC Federal Candidate
FD Federal De-listed
FPD Federal Proposed for De-listing
FPT Federal Proposed Threatened
NMFS Species under the Jurisdiction of the National Marine Fisheries Service
BCC USFWS Birds of Conservation Concern
RP Sensitive species included in a USFWS Recovery Plan or Draft Recovery Plan
SE State Endangered
ST State Threatened
SR State Rare
CSC CDFG Species of Special Concern
Draft CSC 4 April 2000 Draft CDFG Species of Special Concern
CFP CDFG Fully Protected Animal
WBWG Western Bat Working Group High Priority species
SLC Species of Local Concern
List 1A CNPS List 1A: Plants presumed extinct in California
List 1B CNPS List 1B: Plants rare, threatened or endangered in California and elsewhere
List 2 CNPS List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3 CNPS List 3: Plants about which CNPS needs more information (a review list)

Section 4 – Effects on Species and Habitat

This section describes the potential effects on federally-listed species and habitat as a result of implementing the Proposed Action.

4.1 General Effects

Implementation of the Proposed Action has the potential to cause the following general effects on federally listed species and habitat in the Action Area.

- Increase in Human Activity. The Proposed Action will require construction crews to be working in the Action Area for several months. In addition, construction activities will cause an increase in noise and vibration in the Action Area, thereby potentially disturbing fish and wildlife causing them to avoid the area. This may indirectly cause reduced viability, as foraging opportunities may temporarily become more limited and/or chances for predation increase.

- Increase in Sedimentation and decrease in water quality. The Proposed Action may temporarily decrease water quality in the Action Area and immediately downstream if sediments or chemicals are discharged from the construction site. A decrease in water quality may cause a decline in preferred food sources or reduce concentrations of available oxygen for fish and/or amphibian eggs or young.

4.2 Effects to Federally Listed Species and Habitat

This section describes the potential direct, indirect, and cumulative effects the Proposed Action may have to those species identified in Section 3.0 as having a medium or higher potential to occur within the Action Area. Potential species and habitats deemed to be absent or unlikely to occur are not discussed further below. Possible interrelated and interdependent actions to the Proposed Action are also discussed. Potential effects are defined as follows.

- **Direct Effect.** Those effects generated directly from the Proposed Action, such as an incidental take during construction and elimination of suitable habitat due to construction (50CFR 402.02)
- **Indirect Effect.** Those effects that are caused by the Proposed Action and are later in time, such as the discharge of sediment or chemicals adversely affect water quality downstream of the Action Area (50 CFR 402.02).
- **Cumulative Effect.** Effects of future state or private activities that are reasonably certain to occur within the Proposed Action Area (50 CFR 402.02).
- **Interrelated Actions.** Those actions that are part of, and dependent upon, a larger action (50 CFR 402.02).
- **Interdependent Actions.** Actions that have no independent utility apart from the Proposed Action (50 CFR 402.02).

Construction of the Proposed Action could likely have temporary direct effects to federal threatened and endangered species and habitat. The Proposed Action could also incidentally take listed species if

they are present in the Action Area during construction activities. However, following construction, the Proposed Action would not have any adverse effects on federally listed species and habitats. Summarized below are the potential effects on federally listed species and recommended measures to reduce and/or avoid these potential adverse effects.

Birds
***Athene cunicularia* - burrowing owl**

Species Overview

The burrowing owl occurs in dry, open grasslands on flat or rolling terrain; desert; scrubland or any other terrain dominated by low-growing vegetation. Burrowing owls use the abandoned burrows of ground-dwelling mammals such as ground squirrels, badgers, prairie dogs or hares. The CNDDB indicates an occurrence within the immediate vicinity of the project area. The burrowing owl is listed by the CDFW as a species of special concern and is also covered by the Federal Migratory Bird Treaty Act.

Direct and Indirect Effects

Construction could directly or indirectly impact owls or their burrows if they are near the site. The CDFW guidelines describe three types of impacts:

- Disturbance or harassment within 50 meters (approx. 160 ft.) of occupied burrows.
- Destruction of burrows and burrow entrances. Burrows include structures such as culverts, concrete slabs and debris piles that provide shelter to burrowing owls.
- Degradation of foraging habitat adjacent to occupied burrows.

To mitigate for potential impacts to burrowing owls, mitigation measures are presented below that would bring the potential impact to this species to a less-than-significant level.

- **Conduct Breeding Surveys.** For construction activities that occur between February 1 and August 31, preconstruction breeding bird surveys shall be conducted by a qualified biologist prior to and within 10 days of any initial ground-disturbance activities. Surveys shall be conducted within all suitable nesting habitat within 250 feet of the activity. All active, non-status passerine nests identified at that time should be protected by a 50-foot radius minimum exclusion zone. Active raptor or special-status species nests should be protected by a buffer with a minimum radius of 200 feet. CDFW and USFWS recommend that a minimum 500-foot exclusion buffer be established around active white-tailed kite and golden eagle nests. The following considerations apply to this mitigation measure:

    - Survey results are valid for 14 days from the survey date. Should ground disturbance commence later than 14 days from the survey date, surveys should be repeated. If no breeding birds are encountered, then work may proceed as planned.

    - Exclusion zone sizes may vary, depending on habitat characteristics and species, and are generally larger for raptors and colonial nesting birds. Each exclusion zone would remain in place until the nest is abandoned or all young have fledged.

- The non-breeding season is defined as September 1 to January 31. During this period, breeding is not occurring and surveys are not required. However, if nesting birds are encountered during work activities in the non-breeding season, disturbance activities within a minimum of 50 feet of the nest should be postponed until the nest is abandoned or young birds have fledged.

- **Conduct Nesting Surveys.** For any construction activities initiated between March 15 and September 1, surveys for nesting western burrowing owls and/or raptors are required with 0.25 mile of areas of disturbance. If an active nest is found, a qualified biologist shall monitor the nest during construction activities within 0.25 mile of the nest to determine whether project construction may result in abandonment. The monitor shall continue monitoring the nest until construction within 0.25 mile of the nest is completed, or until all chicks have completely fledged. If the monitor determines that construction may result in abandonment of the nest, all construction activities within 0.25 mile should be halted until the nest is abandoned or all young have fledged.

The implementation of the above mitigation measures would reduce impacts associated with the Proposed Action to a level of less-than-significant. No additional mitigation measures are required.

Cumulative Effects

Further, the Proposed Action is unlikely to have significant cumulative effects on this species or its supporting habitat. No other known development is currently planned in the Proposed Action Area that would remove or further degrade habitat in the vicinity of Proposed Action Area. In addition, the Proposed Action would not have any long-term effects to habitat quality in the region after construction is completed.

Interdependent and Interrelated Effects

The Proposed Action is considered to be an action that has independent utility apart from other Projects in the City and Alameda County and would not have any additional adverse interrelated effects on this species or its supporting habitat.

Reptiles
Masticophis lateralis euryxanthus – Alameda whipsnake

Species Overview

The Alameda whipsnake (*Masticophis lateralis euryxanthus*) is a member of the family Colubridae, which includes most of the species of snakes found in the western United States. It is a federally listed slender, fast-moving, diurnally active snake with a slender neck, broad head and large eyes. Another common name for the Alameda whipsnake is the "Alameda striped racer."

Adults reach a length of 3 to 4 feet (91 to 122 centimeters). Their back is colored sooty black or dark brown with a distinct yellow-orange stripe down each side. The front part of their underside is orange-

rufous colored. The midsection is cream colored. The rear section and tail are pinkish.

The Alameda whipsnake is one of two subspecies of *Masticophis lateralis*. The other subspecies, the chaparral whipsnake (*Masticophis lateralis lateralis*), is distributed from northern California, west of the Sierran crest and desert, to central Baja California.

The Alameda subspecies is distinguished from the more common chaparral whipsnake by a sooty black back area, wider yellow-orange stripes that run laterally down each side, the lack of a dark line across the scale near the tip of the nose, an uninterrupted light stripe between the tip of the nose and eye, and the virtual absence of spotting on the underside of the head and neck.

This extremely fast-moving snake holds its head high off the ground to peer over grass or rocks for potential prey. It is an active daytime predator. Rock outcrops are an important feature of Alameda whipsnake habitat because they provide retreat opportunities for whipsnakes and promote lizard populations. Lizards, especially the western fence lizard (*Sceloporus occidentalis*), appear to be the most important prey item of whipsnakes, although other prey items are taken, including skinks, frogs, snakes and birds.

Adult snakes appear to have a bimodal seasonal activity pattern with a large peak during the spring mating season and a smaller peak during late summer and early fall. Although short above-ground movements may occur during the winter, Alameda whipsnakes generally retreat in November into a hibernaculum (shelter used during the snake's dormancy period) and emerge in March.

Courtship and mating occur from late-March through mid-June. During this time, males move around throughout their home ranges, while females appear to remain at or near their hibernaculum, where mating occurs.

Alameda whipsnakes are typically found in chaparral—northern coastal sage scrub and coastal sage. Recent telemetry data indicate that, although home ranges of Alameda whipsnakes are centered on shrub communities, they venture up to 500 feet into adjacent habitats, including grassland, oak savanna, and occasionally oak-bay woodland.

Telemetry data indicate that whipsnakes remain in grasslands for periods ranging from a few hours to several weeks at a time. Grassland habitats are used by male whipsnakes most extensively during the mating season in spring. Female whipsnakes use grassland areas most extensively after mating, possibly in their search for suitable egg-laying sites.

The only evidence of Alameda whipsnake egg-laying is within a grassland community adjacent to a chaparral community. This egg-laying occurred within a few feet of scrub on ungrazed grassland interspersed with lots of scattered shrubs. At two sites, gravid females have been found in scrub.

Core areas (areas of concentrated use) of the Alameda whipsnake most commonly occur on east, south, southeast, and southwest facing slopes. However, recent information indicates that whipsnakes do make use of north facing slopes in more open stands of scrub habitat.

The Alameda whipsnake currently inhabits the inner coast range mostly in Contra Costa and Alameda counties, with additional occurrence records in San Joaquin and Santa Clara counties.

Direct and Indirect Effects

Construction activities of the Proposed Action have the potential to have direct and indirect adverse impacts to the Alameda whipsnake. However, these potential impacts to the Alameda whipsanke would be minimized to less-than-significant levels with the incorporation of the following mitigation measures and procedures:

- **Conduct Alameda whipsnake Pre-construction Surveys.** Prior to construction, the City shall conduct focused pre-construction surveys for the Alameda whipsnake at all project sites/areas within or directly adjacent to areas identified as having high potential for whipsnake occurrence. Project sites within high potential areas shall be fenced to exclude snakes prior to project implementation. Methods for pre-construction surveys, burrow excavation, and site fencing shall be developed prior to implementation of any project located within or adjacent to areas mapped as having high potential for whipsnake occurrence. Such methods would be developed in consultation or with approval of USFWS for any development taking place in USFWS officially designated Alameda whipsnake critical habitat. Pre-construction surveys of such project sites shall be carried out by a permitted biologist familiar with whipsnake identification and ecology (Swaim, 2002). These are not intended to be protocol-level surveys but designed to clear an area so that individual whipsnakes are not present within a given area prior to initiation of construction. At sites where the project footprint would not be contained entirely within an existing developed area footprint and natural vegetated areas would be disturbed any existing animal burrows shall be carefully hand-excavated to ensure that there are no whipsnakes within the project footprint. Any whipsnakes found during these surveys shall be relocated according to the Alameda Whipsnake Relocation Plan. Snakes of any other species found during these surveys shall also be relocated out of the project area. Once the site is cleared it shall then be fenced in such a way as to exclude snakes for the duration of the construction activities. Fencing shall be maintained intact throughout the duration of the construction activities. All construction activities shall be performed during daylight hours, or with suitable lighting so that snakes can be seen. Vehicle speed on the construction site shall not exceed 5 miles per hour.

Cumulative Effects

The Proposed Action is unlikely to have significant cumulative effects on this species or it supporting habitat. No other known development is currently planned in or near the Proposed Action Area that would remove or further degrade habitat. In addition, the Proposed Action would not have any long-term effects to habitat quality in the region once construction is complete.

Interdependent and Interrelated Effects

The Proposed Action is considered to be an action that has independent utility apart from other Projects in the City of Pleasanton and Alameda County and would not have any additional adverse interrelated effects on this species or its supporting habitat.

4.3 Waters of the United States, Including Wetlands

The following is a summary of the potential to affect water of the United States, including wetlands.

Overview

Seasonal Wetland/Vernal pools

The Proposed Action would be constructed on paved roads and on existing agricultural services roads in agricultural fields that are highly disturbed areas. As a result, there are no known seasonal wetlands and/or vernal pools that would be affected by the Proposed Action.

Other Waters of the U.S.

The Proposed Action could cross several local creeks/drainages that could be considered Other Waters of the U.S.

Direct and Indirect Effects

The Proposed Action could have an adverse effect on local creek/drainage crossings that may meet the USACE criteria for Waters of the U.S. and any fill or degradation to these channels could significantly impact water quality or habitat for protected species. Specifically, any activity which results in the deposit of dredge or fill material within the Ordinary High Water mark of Waters of the U.S. typically requires a permit from the (Corps). In addition, the bed and banks of the creeks and drainage channels could also fall under the regulatory authority of the CDFW. However, as stated in Section 2, Project Description, all of the creek/drainage crossings will involve the use of trenchless construction techniques in the dry season and not involve cutting through or disturbing the creeks.

Excavation, grading, and other general construction activities associated with the Proposed Action could expose and disturb soils, resulting in potential increases in erosion and siltation in the Project area. Construction during the rainy season could result in increases in erosion, siltation, and water quality issues. Generally, excavation, grading, paving, and other construction activities could expose disturbed and loosened soils to erosion by wind and runoff. Construction activities could therefore result in increased erosion and siltation, including nutrient loading and increasing the total suspended solids concentration. Erosion and siltation from construction have the potential to impact the creeks and drainage crossings, therefore posing a potentially significant impact to wetlands and waters of the U.S.

Implementation of the following mitigation measures would reduce and minimize these impacts so as to not adversely affect.

- **Obtain all Required Authorizations.** Prior to issuance of encroachment permits for the Proposed Project, the City shall, as necessary, prepare a wetlands delineation and obtain all required authorization from agencies with jurisdiction over riparian habitats and jurisdictional wetlands in the area. Such agencies may include, but are not limited to, the United States Army Corps of Engineers, the California Department of Fish and Wildlife, and the San Francisco Regional Water Quality Control Board. Impacted habitat shall be offset through onsite restoration, offsite restoration, or purchase of credits at a CDFW and/or USFWS-approved mitigation bank in the region at no less than a 1:1 ratio. The requirements of this mitigation measure do not apply if pipeline installation activities completely avoid work within the bed, bank, or channel of the creeks and/or drainages.

- **Avoid cutting through the creeks.** As described in the Proposed Action description, all creek crossings will be crossed by installing the pipelines on the side of the bridge and above the channel. Construction crews shall avoid entering the stream channels during installation. With these mitigation measures in place, the Proposed Action is unlikely to have a direct and/or indirect adverse effect on this species or its supporting habitat. Once constructed, the operation and maintenance of the Proposed Action will not adversely affect this species.

- **Implement Best Management Practices.** To reduce potentially significant erosion and siltation, the City and/or its selected contractor(s) shall obtain a Stormwater Pollution Prevention Permit (SWPPP) and implement Best Management Practices and erosion control measures as required by the San Francisco RWQCB. Best Management Practices to reduce erosion and siltation shall include, at a minimum, the following measures: Avoidance of construction activities during inclement weather; limitation of construction access routes and stabilization of access points; stabilization of cleared, excavated areas by providing vegetative buffer strips, providing plastic coverings, and applying ground base on areas to be paved; protection of adjacent properties by installing sediment barriers or filters, or vegetative buffer strips; stabilization and prevention of sediments from surface runoff from discharging into storm drain outlets; use of sediment controls and filtration to remove sediment from water generated by dewatering; and returning all drainages to preconstruction conditions. Construction crews shall avoid entering the stream channels during installation.

Cumulative Effects

The Proposed Action is unlikely to have significant cumulative effects on riparian habitat and/or jurisdictional wetlands. No other known development is currently planned in the Proposed Action Area that would remove or further degrade riparian habitat and/or jurisdictional wetlands within the vicinity of Proposed Action Area. In addition, the Proposed Action would not have any long-term effects to riparian habitat and/or jurisdictional wetlands in the region as once construction is complete.

Interdependent and Interrelated Effects

The Proposed Action is considered to be an action that has independent utility apart from other Projects in the City and in Alameda County and would not have any adverse interdependent and/or interrelated effects on riparian habitat and/or jurisdictional wetlands.

Section 5 Determination of Effects

This section provides a summary and makes a determination as to the potential for the Proposed Action to affect the federally listed species identified in Section 1.

5.1 No Effect

Through the course of this study and analysis, it is our determination that the Proposed Action will not affect the following species:

Plant Species

- *Amsinckia grandiflora* (E) (X) large-flowered fiddleneck)
- *Arctostaphylos pallida* (T) pallid manzanita
- *Chorizanthe robusta var. robusta* (E) robust spineflower
- *Clarkia franciscana* (E) Presidio clarkia
- *Cordylanthus palmatus* (E) palmate-bracted bird's-beak
- *Holocarpha macradenia* (T) (X) Santa Cruz tarplant
- *Lasthenia conjugens* (E) (X) Contra Costa goldfields
- *Layia carnosa* (E) beach layia
- *Suaeda californica* (E) California sea blite

Mammals

- *Reithrodontomys raviventris* (E) Salt-marsh Harvest Mouse
- *Vulpes macrotis mutica* (E) San Joaquin kit fox

Birds

- *Athene cunicularia* (T) Burrowing owl
- *Charadrius alexandrines nivosus* (T) Western Snowy Plover
- *Coccyzus americanus occidentalis* (C) Western Yellow-billed Cuckoo
- *Pelecanus occidentalis californicus* (E) California Brown Pelican
- *Rallus longirostris obsoletus* (E) California Clapper Rail
- *Sternula antillarum* (E) California least tern
- *Strix occidentalis caurina* (T) Northern spotted owl

Reptiles

- *Thamnophis gigas* (E) Giant garter snake
- *Thamnophis sirtalis tetrataenia* (E) San Francisco garter snake

Amphibians

- *Ambystma californiense* (T) (X) California tiger salamander
- *Rana aurora draytonii* (T) (X) California Red-legged frog

Fish

- *Acipenser medirostris* (T) (NMFS) Green sturgeon
- *Eucyclogobius newberryi* (E) Tidewater goby

- *Hypomesus transpacificus* (T) (X) Delta smelt
- *Oncorhynchus kisutch* (E) (NMFS) Coho salmon - Central CA Coast
- *Oncorhynchus mykiss* (T) (X) (NMFS) Steelhead, Central CA Coast /Valley
- *Oncorhynchus tshawytscha* (T) (NMFS) Chinook salmon, Central Valley, spring-run
- *Oncorhynchus tshawytscha* (E) (X) Chinook salmon - Sacramento River, winter-run

Invertebrates

- *Branchinecta conservation* (E) Conservancy fairy shrimp
- *Branchinecta longiantenna* (E) (X) longhorn fairy shrimp
- *Branchinecta lynchi* (T)(X) Vernal pool fairy shrimp
- *Desmocerus californicus dimorphus* (T) Valley elderberry longhorn beetle
- *Euphydryas editha bayensis* (T) bay checkerspot butterfly
- *Icaricia icarioides missionensis* (E) Mission blue butterfly
- *Lepidurus packardi* (T) (X) Vernal pool tadpole shrimp
- *Speyeria callippe callippe* (E) Callippe silverspot butterfly

5.2 Potential to Affect, But Not Likely to Adversely Affect

Through the course of this study and analysis, it is our determination that the Proposed Action could affect, but with the incorporation of the identified mitigation measures identified above, would not adversely affect the following species:

Reptiles

- *Masticophis lateralis euryxanthus* (T) (X) Alameda whipsnake

Birds

- *Athene cunicularia* (T) Burrowing owl

Section 6 Bibliography

This section provides a listing of the references and resources used in this report.

- California Natural Diversity Database. 2014. http://www.dfg.ca.gov/biogeodata/cnddb
- U. S. Fish and Wildlife Service species list database and Wetland Tracker. 2014. http://www.fws.gov/

Attachment A

Species List for the City of Pleasanton's Recycled Water Project

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

April 30, 2014

Document Number: 140430105033

Steve
SMB Environmental Inc.
P.O. Box 381
Roseville, CA 95661

Subject: Species List for City of Pleasanton - Recycled Water Project

Dear: Interested party

We are sending this official species list in response to your April 30, 2014 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 29, 2014.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found http://www.fws.gov/sacramento/es/Branch-Contacts/es_branch-contacts.htm.

Endangered Species Division

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

Document Number: 140430105033

Current as of: April 30, 2014

Quad Lists

Listed Species

Invertebrates

Branchinecta conservatio
- Conservancy fairy shrimp (E)

Branchinecta longiantenna
- longhorn fairy shrimp (E)

Branchinecta lynchi
- Critical habitat, vernal pool fairy shrimp (X)
- vernal pool fairy shrimp (T)

Euphydryas editha bayensis
- bay checkerspot butterfly (T)

Lepidurus packardi
- Critical habitat, vernal pool tadpole shrimp (X)
- vernal pool tadpole shrimp (E)

Fish

Hypomesus transpacificus
- delta smelt (T)

Oncorhynchus mykiss
- Central California Coastal steelhead (T) (NMFS)
- Central Valley steelhead (T) (NMFS)

Oncorhynchus tshawytscha
- Central Valley spring-run chinook salmon (T) (NMFS)
- winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
- California tiger salamander, central population (T)
- Critical habitat, CA tiger salamander, central population (X)

Rana draytonii
- California red-legged frog (T)
- Critical habitat, California red-legged frog (X)

Reptiles

Masticophis lateralis euryxanthus
- Alameda whipsnake [=striped racer] (T)
- Critical habitat, Alameda whipsnake (X)

Birds

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

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Cordylanthus palmatus
palmate-bracted bird's-beak (E)

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

Quads Containing Listed, Proposed or Candidate Species:

LIVERMORE (446A)
DUBLIN (446B)
NILES (446C)

County Lists

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)
S

Branchinecta longiantenna
Critical habitat, longhorn fairy shrimp (X)
longhorn fairy shrimp (E)
S

Branchinecta lynchi
Critical habitat, vernal pool fairy shrimp (X)
vernal pool fairy shrimp (T)
S

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)
S

Euphydryas editha bayensis
bay checkerspot butterfly (T)
S

Icaricia icarioides missionensis
mission blue butterfly (E)
S

Lepidurus packardi
Critical habitat, vernal pool tadpole shrimp (X)
vernal pool tadpole shrimp (E)
S

Speyeria callippe callippe
callippe silverspot butterfly (E)
S

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)
S

Eucyclogobius newberryi
tidewater goby (E)
S

Hypomesus transpacificus
Critical habitat, delta smelt (X)
delta smelt (T)
S

Oncorhynchus kisutch
coho salmon - central CA coast (E) (NMFS)
S

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NMFS)
Central Valley steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)
S

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)
S

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)
S

Rana draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

S

Reptiles

Masticophis lateralis euryxanthus
Alameda whipsnake [=striped racer] (T)
Critical habitat, Alameda whipsnake (X)
S

Thamnophis gigas
giant garter snake (T)
S

Thamnophis sirtalis tetrataenia
San Francisco garter snake (E)
S

Birds

Charadrius alexandrinus nivosus
western snowy plover (T)
S

Pelecanus occidentalis californicus
California brown pelican (E)
S

Rallus longirostris obsoletus
California clapper rail (E)
S

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

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)
S

Vulpes macrotis mutica
San Joaquin kit fox (E)
S

Plants

Amsinckia grandiflora
Critical habitat, large-flowered fiddleneck (X)
large-flowered fiddleneck (E)
S

Arctostaphylos pallida
pallid manzanita (=Alameda or Oakland Hills manzanita) (T)
S

Chorizanthe robusta var. robusta
robust spineflower (E)
S

Clarkia franciscana
Presidio clarkia (E)
S

Cordylanthus palmatus
palmate-bracted bird's-beak (E)
S

Holocarpha macradenia
Critical habitat, Santa Cruz tarplant (X)
Santa Cruz tarplant (T)
S

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

Layia carnosa
beach layia (E)
S

Suaeda californica
California sea blite (E)
S

Key:

(E) *Endangered* - Listed as being in danger of extinction.
(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
Critical Habitat - Area essential to the conservation of a species.
(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
(C) *Candidate* - Candidate to become a proposed species.
(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

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

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

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

Plants

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

Surveying

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

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

Your Responsibilities Under the Endangered Species Act

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

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

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

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

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

proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

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

Critical Habitat

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

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

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

Candidate Species

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

Species of Concern

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

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 29, 2014.

Appendix D

Section 106 Cultural Resources Investigation Report

THE CITY OF PLEASANTON

Appendix D

Section 106
Cultural Resources Investigation Report



Recycled Water Project

June 2014

SMB ENVIRONMENTAL

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Section 106
Cultural Resources Investigation Report
City of Pleasanton Recycled Water Project

Prepared by:

SMB Environmental, Inc.

June 2014

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Section 1 - Introduction

This document is a cultural resources inventory study on the City of Pleasanton's proposed Recycled Water Project (Proposed Action) in Alameda County, California. This report presents the project location and background, Proposed Description/Action, area of potential effect, environmental setting, regulatory framework, and the investigation methods and results of the cultural resources investigation for the Proposed Action.

The term "cultural resources" encompasses historic, archaeological, and paleontological resources, and burial sites. Below is a brief summary of each component:

- **Historic Resources:** Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State's history and are generally less than 200 years old.

- **Archaeological Resources:** Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with indigenous cultures.

- **Paleontological Resources:** Paleontology is the study of plant and animal fossils.

- **Burial Sites:** Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

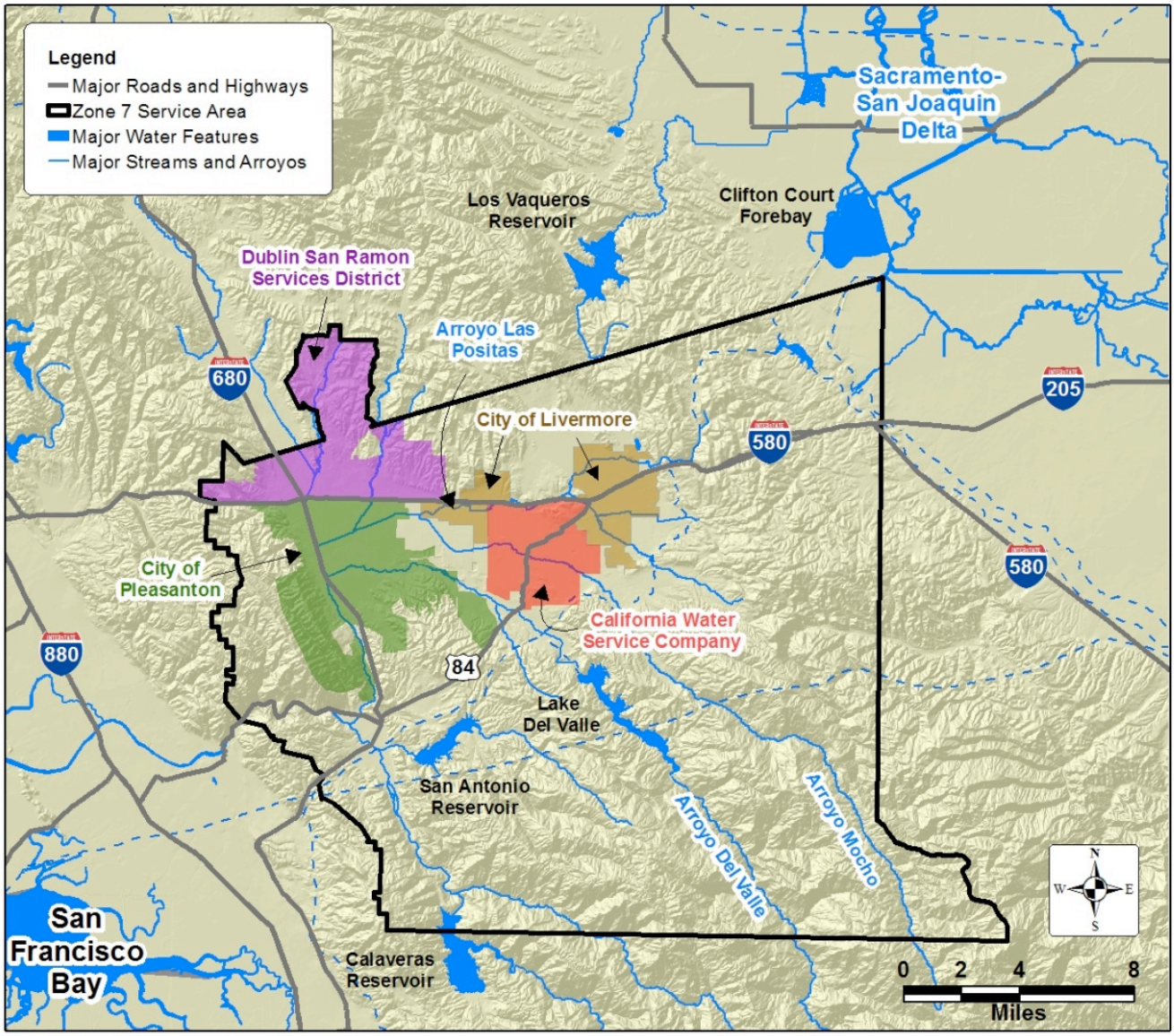
This study was conducted in order to identify cultural resources that include prehistoric and historic archeological resources, buildings, structures, and sites of religious or cultural significance for Native Americans within the proposed project area. Because the Proposed Action may involve the use of State Revolving Loan Program and/or federal funds, this investigation was conducted in compliance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 Code of Federal Register [CFR] Part 800).

1.1 Project Location and Background

The City of Pleasanton is located in Alameda County approximately 35 miles southeast of San Francisco, situated at the junction of I-580 and I-680. As shown on Figure 1, the City's water service area encompasses an area of approximately 22 square miles; servicing city residents, commercial customers, and approximately 250 customers in unincorporated Alameda County along Kilkare Road just north of the town of Sunol.

As of 2010, Pleasanton supports a residential population of 69,300. By 2030 Pleasanton's population is projected to grow by another 19 percent to 82,300. The residential sector accounts for the City's largest water consuming sector (61percent), followed by landscape irrigation (27 percent), commercial (12 percent), and lastly industrial sector (<1percent). The importance of efficient and purposeful use of water in California has come under legislative focus through the passage of the Water Conservation Bill of 2009. Under this law, Pleasanton has set the goal of achieving a twenty percent reduction in water consumption by 2020. This equates to a "target" of 195 gallons per capita per day (gpcd), a twenty

Figure 1
General Location Map



percent reduction from a baseline of 244 gpcd. Two sources of water supply Pleasanton's service area: 1) local groundwater from three wells owned and operated by the City (approximately 20% of the annual demand), and 2) the remaining portion of water demand is supplied through the purchase of water from Zone 7. According to the City's agreement with Zone 7, Pleasanton pumps a maximum of 3,500 acre-feet per year (afy) from its wells, with a carryover of 700 Acre Feet of unused pumping quota from one year to another.

The City's distribution system currently consists of 22 storage reservoirs with a maximum capacity of 37 million gallons. One of the City's existing storage reservoirs, Tassajara Reservoir, is being considered for conversion to a recycled water storage facility for this Proposed Action. It also includes 14 pressure zones, 14 pump stations, 2,500 fire hydrants and 306 miles of pipelines. This system services approximately 21,700 connections; of which 90 percent are residential customers, 5.5 percent are commercial/institutional customers, 4.5 percent are irrigation customers (for commercial and multi-family residential landscape meters), and less than 1percent are industrial customers.

1.2 Purpose and Need

The purpose of the Proposed Action is to construct and operate a new recycled water system to replace/augment existing irrigation supplies in the City's service area. The development of recycled water service within the City will lessen the demand for Zone 7 Water Agency (Zone 7) potable water supplies and help the City meet the State of California's Water Conservation Act of 2009, which requires a 20 percent reduction in urban per capita water use by the year 2020. Furthermore, the addition of recycled water to the City's water supply portfolio will increase its water system's reliability since recycled water is a local supply within the City's control and is drought-proof.

Section 2 - Proposed Action Description

As shown in Figure 2, the Proposed Action includes the upgrade and expansion of the Dublin San Ramon Services District's (DSRSD) existing wastewater treatment plant (WWTP) to provide a recycled water supply of approximately 2,500 acre-feet per year (afy) to meet recycled water demand in the City's service area and offset deliveries from the City's groundwater supplies and water supply purchases from Zone 7. All of the WWTP plant upgrades will be included within DSRSD's existing WWTP location and within existing facilities that were previously designed, sized, and constructed for this potential upgrade and expansion. All of the recycled water will be produced by the City of Livermore waste Water Treatment Facility and the Dublin San Ramon Services District/East Bay Municipal Utilities District Recycled Water Authority(DERWA). The Proposed Action also includes the construction of up to approximately 22-miles (115,200 linear feet) of pipeline ranging in diameter from 6-inches to 18-inches. In addition, the Proposed Action will also include approximately 3.2 miles (16,500) feet of existing pipeline that will be repurposed from abandoned or exiting potable pipelines. Table 1 provides a summary of the pipeline segments by construction phase. The pipeline facilities would be located primarily in existing roadways. In addition, the Proposed Action will also include the conversion of the existing 8 million gallon (MG) Tassajara Reservoir to a recycled water storage facility.

2.1 Construction Considerations

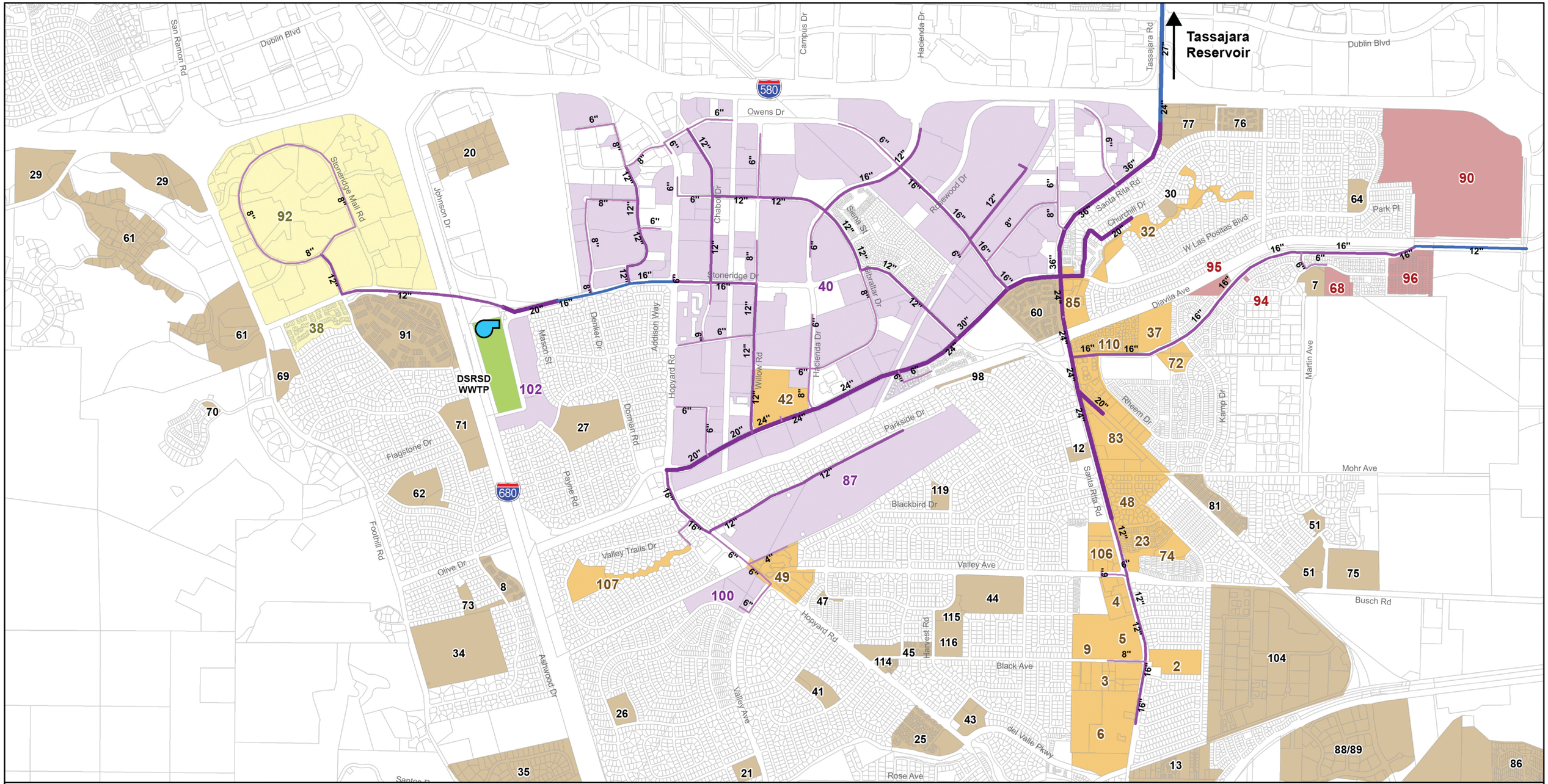
Construction of the Proposed Action facilities is expected to begin in the summer of 2014 and will likely continue into the summer of 2019. Construction work will typically be done within normal working hours, weekdays between the hours of 8 a.m. and 8 p.m., and possibly on Saturdays between the hours of 10 a.m. and 6 p.m. The Proposed Action would be constructed primarily within existing roadways and any damages occurring during construction will be returned to the pre-construction condition or better. Detailed below is a summary of the construction techniques and activities.

- The upgrades to the tertiary filtration system would involve installing parallel filter cells in existing facilities within DSRSD's existing WWTP. As a result, no new construction and excavation would occur.

- Each customer location will require some level of work due to possible meter location changes and pressure differences affecting overspray requirements. On-site plumbing changes may be required to comply with cross connection requirements.

- The majority of the pipelines would be installed in existing roadways using conventional cut and cover construction techniques and installing pipe in open trenches. It is assumed that up to a 50-foot wide construction corridor would be used to help maximize the efficiency during construction. However, in most places a 25-foot construction corridor could be realized, especially for the smaller diameter pipelines. It is anticipated that excavation would range from 2-5 feet wide and would typically be no more than 6-feet deep.

- Any local creek or drainage crossings would be constructed using trenchless techniques and will be done in the dry season and will not occur during inclement weather or between October 15 and April 1.



Legend

DSRSD Facilities

- WWTP
- Recycled Water Pump Station

Proposed Recycled Water Pipelines

- 20" and Larger
- 12" - 16"
- 8" and Smaller

Existing Recycled Water Pipelines

- 20" and Larger
- 12" - 16"

- Parcels

Potential Users

- Served by Phase 1 Alignment
- Served by Phase 2 Alignment
- East Option – Staples Ranch area
- West Option – Stoneridge mall area
- Potential Customers not Considered Feasible at this time

0 1,500 3,000 Feet

Figure 2
Proposed Project/Action Facilities
Recycled Water Project
City of Pleasanton

Table 1: Proposed Action Pipeline Segments by Phase

Phase	Diameter (in.)	Length (ft.)	Length (miles)
Phase 1A – Hacienda Area			
New Pipeline	6-16	49,100	9.3
Existing – Santa Rita Road	24	4,000	0.8
Existing – Tassajara Road	27	8,200	1.6
Existing – Stoneridge Drive	16	2,200	0.4
Subtotal		**63,500**	**12.1**
Phase 1B – Hacienda Area			
New Pipeline	4-16	20,700	3.9
New Pipeline (Santa Rita Road)	30	4,000	0.8
Subtotal		**24,700**	**4.7**
Phase 2 – Remaining Feasible Customers			
New Pipeline	4-16	18,800	3.6
Subtotal		**18,800**	**3.6**
West Option – Stoneridge Mall Area			
New Pipeline	4-16	12,100	2.3
Subtotal		**12,100**	**2.3**
East Option – Staples Ranch Area			
New Pipeline	6-18	10,500	2.0
Existing Pipeline – Stoneridge Drive	18	2,100	0.4
Subtotal		**12,600**	**2.4**
New Pipeline - Subtotal		**15,200**	**12.9**
Repurposed Pipeline - Subtotal		**16,500**	**3.2**
TOTAL		**131,700**	**29.1**

- Dewatering of the pipeline as a result of hydrostatic testing during construction as well as any dewatering as a result of operations and maintenance activities shall be discharged to land and/or the sanitary sewer system and not into any creeks, drainages, or waterways and shall require prior approval from the San Francisco Bay Regional Water Quality Control Board.

Construction activities for this kind of project will typically occur with periodic activity peaks, requiring brief periods of significant effort followed by longer periods of reduced activities. In order to characterize and analyze potential construction impacts, the City has assumed that the project would be constructed by two (2) crews of 10-15 workers each and would proceed at a rate of approximately 500-1,000 feet per day. However, specific details may change or vary slightly. Staging areas for storage of pipe, construction equipment, and other materials would be placed at locations (primarily empty parking lots) that would minimize hauling distances and long-term disruption.

Excavation and grading activities would be necessary for construction of the Proposed Action. Excavated materials resulting from site preparation would either be used on-site during construction or disposed

of at a fill area authorized by the City. It is not anticipated that any soils would be imported for this project. Additional truck trips would be necessary to deliver materials, equipment, and asphalt-concrete to the site. During peak excavation and earthwork activities, the Proposed Action could generate up to 40 round-trip truck trips per day. In support of these activities and for the assumptions for this document, the types of equipment that may be used at any one time during construction may include, but not limited to:

- Track-mounted excavator
- Backhoe
- Grader
- Crane
- Dozer
- Compactor
- Trencher/boring machine
- End and bottom dump truck
- Front-end loader
- Water truck
- Flat-bed delivery truck
- Forklift
- Compressor/jack hammer
- Asphalt paver & roller
- Street sweeper

It is recognized that details of the construction activities and methods may change slightly as the specific details will be developed during final design and by the selected contractor. However, this description provides sufficient information to base the conclusions to probable environmental impacts associated with construction activities for this kind of project. Therefore, as long as the construction methods are generally consistent with these methods and do not conflict with any of the City's design standards or established ordinances, and does not create any new potential environmental impacts that are not described within this document, then no new environmental analyses will likely be required for any minor change in construction activities, timing, and/or schedule.

2.2 Compliance with CCR Title 22 and State Board's Recycled Water Policy

The Proposed Action will be designed and operated in accordance with the applicable requirements of CCR Title 22 and any other state or local legislation that is currently effective or may become effective as it pertains to recycled water. The State Board adopted a Recycled Water Policy (RW Policy) in 2009 to establish more uniform requirements for water recycling throughout the State and to streamline the permit application process in most instances. As part of that process, the State Board prepared an Initial Study and Mitigated Negative Declaration for the use of recycled water. The newly adopted RW Policy includes a mandate that the State increase the use of recycled water over 2002 levels by at least 1,000,000 AFY by 2020 and by at least 2,000,000 AFY by 2030. Also included are goals for storm water

reuse, conservation and potable water offsets by recycled water. The onus for achieving these mandates and goals is placed both on recycled water purveyors and potential users. The State Board has designated the Regional Water Quality Control Boards as the regulating entities for the Recycled Water Policy. In this case, the San Francisco Bay Regional Water Quality Control Board (San Francisco RWQCB) is responsible for permitting recycled water projects throughout the San Francisco Bay Area and including the City of Pleasanton.

The Proposed Action will be provided high quality unrestricted use tertiary treated recycled water from the City of Livermore Waste Water Treatment Facility and DSRSD/DERWA Treatment Facility and made available to users within the City. All irrigation systems will be operated in accordance with the requirements of Title 22 of the CCR, the State Board Recycled Water Policy, and any other local legislation that is effective or may become effective as it pertains to recycled water and any reclamation permits issued by the San Francisco RWQCB. Reclamation permits typically require the following:

- Irrigation rates will match the agronomic rates of the plants being irrigated;
- Control of incidental runoff through the proper design of irrigation facilities;
- Implementation of a leak detection program to correct problems within 72 hours or prior to the release of 1,000 gallons whichever occurs first;
- Management of ponds containing recycled water to ensure no discharges; and
- Irrigation will not occur within 50 feet of any domestic supply wells, unless certain conditions have been met as defined in Title 22.

2.3 Operational and Maintenance Plans

The City does not currently, but intends to, have operations, maintenance, and support staff to distribute recycled water. The City has completed operations, maintenance, and treatment agreements with the City of Livermore and DERWA to provide the City of Pleasanton with recycled water treatment services only. As it is currently envisioned, the City of Livermore and DERWA would operate and maintain their recycled water treatment systems and the City of Pleasanton would require and enforce an irrigation schedule among its users. This arrangement is referred to as a "water master." The 'water master' strategy will vary irrigation schedules in a way that optimizes use of the distribution system. The water master schedule may be modified in the future, but the initial assumptions are outlined below.

- Vineyard Demand Factor - 0.33 AFY/acre
- Landscaping Demand Factor - 2.5 AFY/acre
- Vineyard Irrigation hours (Summer) 6am – 6pm
- Landscape Irrigation hours (Summer) 6pm – 6am
- Summer storage filling 6pm – 6am
- Winter storage filling 24 hours per day

By irrigating using the above scheduling, peak flows are reduced and pipe sizing is optimized. For more detailed information about the water master concept refer to the *2013 City of Pleasanton Recycled Water Feasibility Report*. Maintenance procedures will include 1 or 2 existing City workers who will routinely inspect the pipeline alignment and connections for leaks and repair facilities on an as needed

basis as well as conduct scheduled preventative maintenance procedures to keep the facilities in good working order.

2.4 Area of Potential Effect

The Area of Potential Effect (APE) for the Proposed Action is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of cultural resources as defined above. Trenching for installing the recycled water pipelines would typically require a width of three feet and a vertical depth of approximately six feet; therefore the vertical APE would be typically six feet. For this Proposed Action, an APE of 50-foot wide corridor (25-foot radius from centerline) would be assumed to accommodate for areas for staging and spoils. Depending upon the width of the roadway and the size of pipe, a narrower horizontal APE with an average width of 12.5 feet extending through the right-of-way could be realized.

Section 3 – Environmental Setting

This section presents the environmental setting and impact assessment for cultural resources. Cultural resources are defined as prehistoric and historic sites, structures, and districts, or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community or scientific, traditional, religious, or any other reason. For analysis purposes, cultural resources may be categorized into three groups: archaeological resources, historic resources, and contemporary Native American resources.

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euro American occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

Historic resources are standing structures of historic or aesthetic significance that are generally 50 years of age or older (i.e., anything built in the year 1955 or before). In California, historic resources considered for protection tend to focus on architectural sites dating from the Spanish Period (1529-1822) through the early years of the Depression (1929-1930). Historic resources are often associated with archaeological deposits of the same age.

Contemporary Native American resources, also called ethnographic resources, can include archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, and minerals that contemporary Native Americans value and consider essential for the preservation of their traditional values.

The following cultural, historical, and ethnographic baseline information is extracted from an overview document prepared by the Northwest Information Center at Sonoma State University, as well as information provided by the City of Pleasanton.

3.1 Regional Setting

This section describes the regional environmental setting and includes a Historic Overview of the Project vicinity and an overview of the previously known cultural, historic and prehistoric resources and sites.

Historic Overview of the Project Vicinity

The Project area is situated in the area that was inhabited by the Ohlone Tribe. The eastern shore of San Francisco Bay in today's Alameda County was, at the time of Spanish contact, an area that was home to a number of different linguistic and cultural groups. Exact tribal boundaries have been difficult to reconstruct, although Milliken's (1995) analysis, based on linguistics and Mission records, appears to be the most well-informed.[1]

[1] Milliken, R. A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769–1810. Novato, CA: Ballena Press Anthropological Papers No. 43; Thomas C. Blackburn, series ed. 1994.

The Planning Area is located within what was probably the ethnographic territory of the Chochenyo Tribelet, which appears to have been centered in the Livermore Valley. This group apparently spoke one of the separate languages of the Costanoan language family.[2] This is a linguistic term derived from the Spanish word costaños or "coast people." No single native name was used by Costanoan speakers since they were not a unified political or cultural entity.[3] The descendants of Costanoan-speakers today generally prefer the name Ohlone.

Within this broad linguistic group were a number of specific tribelets, which were relatively autonomous small tribes, with defined territories. They were composed of intermarried families, who cooperated in ceremonial and economic pursuits. Tribelets included permanently inhabited villages and a larger number of seasonal camps, with total territory often no more than eight to twelve miles across.[4] Tribelet populations varied by ecological zone, but in the most densely populated areas of the South and North Bays were as many as six people per square mile. Tribelets may have averaged no more than about 200 persons. It is likely that the size of these groups contributed to the rapid loss of their cultural identity and, sometimes, physical extinction after Spanish missionization.

Tribelets were generally headed by male leaders, often with considerable power, although the degree of influence exercised may have varied by group. Women may have sometimes inherited leadership positions.[5] Although there is little specific information available, we do know Costanoan/Ohlone speaking people of the San Francisco Bay region were successful intensive food collectors and hunters who utilized a range of resources in a favorable environment. In the vicinity of Pleasanton and other interior areas, the local people gathered plant foods that were in plentiful variety on a seasonal basis with acorns being the most important staple food, since they could be stored in quantity. The native people also gathered and ate numerous foods, such as seeds, tubers, and greens. Deer, elk, and antelope were the major game hunted, while rabbits and other small animals, game birds, waterfowl, and fish were also important.

Material culture, while relatively simple technologically, was sufficient for their needs. Stone, bone, and shell tools and ornaments were manufactured and the fiber crafts, especially basketry, were well developed. Costanoan/Ohlone speaking people built several types of structures, including a domed thatched dwelling, and obtained items that were not locally available through trade.[7] These included obsidian for tools and foodstuffs.[6]

The Frontier Era. The Frontier Era began with the settlement of Hispanic and other Euro-American peoples. The Franciscan order of the Roman Catholic Church founded 21 missions between 1769 and 1822, supported by a relatively small military force with the Mission San Jose being the closest to Pleasanton. The Franciscans established these missions for the religious conversion of native peoples to

[2] Milliken 1995:258

[3] Levy, R. Costanoan. Pages 485–495 in R. F. Heizer (ed.), Handbook of North American Indians. Volume 8. California. Smithsonian Institution. Washington, D.C. 1978. This information was found on page 495.

[4] Milliken 1995:21-24

[5] Milliken 1995:19-20

[6] Davis, James T. Trade Routes and Economic Exchange Among the Indians of California. University of California Archaeological Survey Reports 54:1-71. Berkeley. 1961.

Catholicism. The Franciscan order faced an increasing challenge to its control over California land resources and converted Native Americans after Mexican Independence in 1821. The mission system remained intact through 1834 amid substantial political and religious controversy. After that time, the Mexicans secularized the missions and phased out Franciscan control.

The Pioneer Era in Pleasanton. The Mexican-American War (1846-1848) ended with the conquest and occupation of California by the United States. The subsequent discovery of gold in the Mother Lode region of the Sierra Nevada accelerated population growth in California. The gold rush and the long-term success of mining encouraged the development of ranching, farming, trade and urban growth, beginning a cycle of development that has caused California's population to increase every decade at a higher rate than the national increase.

In Pleasanton, Augustin Bernal began the first European settlement in Pleasanton in 1850. The adobe house he built along Foothill Road still exists. Pleasanton was gradually transformed from a stagecoach stop in the 1850s to a homesteading settlement along the transcontinental railroad in the 1870s, to a thriving agricultural center for the production of grain, hay, and hops, well into the twentieth century. The City of Pleasanton incorporated in 1894 and by 1900 had become home to the Bank of Pleasanton, Pleasanton Hop Company, Ruby Hill Vineyard, and three hotels. Beginning in the early 1900s, Henry Kaiser and others began quarrying the sand-and-gravel deposits, an industry still important to the region's economy.

Cultural and Historic Resources/Sites

Cultural and historic resource sites are located throughout the Planning Area. Resources include prehistoric Native American archaeological resources and historic structures and neighborhoods. The City's general plan lists theses resources that are mostly located within the downtown area in Pleasanton on Main Street.

Prehistoric Resource Sites

A review of the Planning Area's cultural resources conducted by the Northwest Information Center found 24 recorded Native American archaeological resources and historic cultural resources listed with the Historical Resources Information System. Native American archaeological sites that were identified range from large villages to small resource processing areas (e.g. for making acorn meal). These sites tend to be situated along ridges, on mid-slope benches, in valleys, and adjacent to intermittent and perennial watercourses. The Planning Area includes all of these environmental features. In addition, Pleasanton is situated atop a formerly extensive marsh and pond system. According to the Northwest Information Center's California Archaeological Inventory, there are several recorded and reported prehistoric and historic archeological sites in the Planning Area.[10] These sites include a prehistoric camp or temporary village; a prehistoric occupation site with mortars, pestles, and arrowheads; two sites that contain chert tools and cranial fragments; and a historic farmhouse. Due to the archaeologically sensitive nature of some Native American sites present in the Planning Area, this document does not specifically provide their locations to protect the integrity of the resources.

Historic Resource Sites

According to the records search conducted by the Northwest Information Center, there are two structures near the Planning Area that are listed on the National Register of Historic Places: the Heathcote- Mackenzie House and the Kottinger Adobe Barn. The Heathcote-Mackenzie House is located at 4501 Pleasanton Avenue (within the Alameda County Fairgrounds) and was constructed in

approximately 1905. For more than 75 years the Heathcote-Mackenzie house was the center of the historical horse racing activities in the Livermore-Amador Valley. The house is one of a few Craftsman style bungalows in the area.

The Kottinger Adobe Barn is located at 200 Ray Street, and was constructed in approximately 1852. The Kottinger Barn was once owned by John W. Kottinger, one of the founders of Pleasanton. Kottinger was known for his judicial activities as both Constable and Justice of the Peace. He also opened the first store in Pleasanton. During the 1850s and 60s, Kottinger's house and barn served as the center for Alameda County government. The barn is all that remains of the property. In the absence of public buildings, John W. Kottinger used the house and barn to perform his judicial duties as courthouse and jail respectively. It is one of few adobe barns in California and one of three adobe structures in the Pleasanton area.14 Further 14 properties (including the two on the National Register) are listed in the State Historic Properties Directory. Many of these structures are located in the Downtown area and date from the 19th and early 20th centuries. Outside of the Downtown area are the Alviso Adobe, which dates from 1844 and is located on the west side of Foothill Road, and the Century House at 2401 Santa Rita Road which represents the architectural heritage of the Amador Valley. In 2002, the City adopted the Downtown Specific Plan that includes a section on Historic Preservation. It highlights five important structures on Main Street, including the:

- Johnston Building at 465 Main Street;
- Original Kolln Hardware Store at 600 Main Street;
- Pleasanton Arch Sign above Main Street near the original Town Hall;
- Original Pleasanton Town Hall (now Livermore-Amador Valley Historical Museum) at 603 Main Street; and
- Pleasanton Hotel (formerly Farmer's Hotel) at 855 Main Street.

The Downtown Specific Plan also identifies the following five heritage neighborhoods:

- Downtown Commercial Center;
- First Street, Second Street, and Third Street (residential);
- "Little" Stanley Boulevard (south side, residential);
- Saint Mary Street and Saint John Street (residential); and
- Spring Street and Ray Street (commercial and residential)

The City of Pleasanton has inventoried all significant structures in the Downtown area, adopted design guidelines which encourage sensitive improvement to Downtown commercial buildings, and adopted historic preservation objectives, polices, and programs. The City also plans to develop an historic landmark preservation ordinance.

Section 4 - Regulatory Framework

Summarized below are the relevant federal and state regulations as well as local goals and policies related to cultural resources that are applicable to the Proposed /Action.

4.1 Federal

Summarized below are the relevant federal regulations related to cultural resources that are applicable to the Proposed Action.

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA), as amended, established the National Register of Historic Places (NRHP), which contains an inventory of the nation's significant prehistoric and historic properties. Under 36 Code of Federal Regulations 60, a property is recommended for possible inclusion on the NRHP if it is at least 50 years old, has integrity, and meets one of the following criteria: It is associated with significant events in history, or broad patterns of events.

- It is associated with significant people in the past.
- It embodies the distinctive characteristics of an architectural type, period, or method of construction; or it is the work of a master or possesses high artistic value; or it represents a significant and distinguishable entity whose components may lack individual distinction.
- It has yielded, or may yield, information important in history or prehistory.
- Certain types of properties are usually excluded from consideration for listing in the NRHP, but they can be considered if they meet special requirements in addition to meeting the criteria listed above. Such properties include religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years.

National Environmental Policy Act

NEPA's concern is with the "human environment," defined as including the natural and physical (e.g. built) environment and the relationships of people to that environment. A thorough environmental analysis under NEPA should systematically address the "human" -- social and cultural -- aspects of the environment as well as those that are more "natural," and should address the relationships between natural and cultural. Culturally valued aspects of the environment generally include historic properties, other culturally valued pieces of real property, cultural use of the biophysical environment, and such "intangible" sociocultural attributes as social cohesion, social institutions, lifeways, religious practices, and other cultural institutions.

4.2 State

Summarized below are the relevant state regulations related to cultural resources that are applicable to the Proposed Action.

California Register of Historical Resources

As defined by Section 15064.5(a)(3)(A-D) of the CEQA Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (CR). The California Register of Historical Resources and many local preservation ordinances have employed the criteria for eligibility to the NRHP as a model, since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets the NRHP criteria is clearly significant. In addition, a resource that does not meet the NRHP standards may still be considered historically significant at a local or state level.

California Environmental Quality Act

The CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. The CEQA guidelines direct lead agencies to evaluate archaeological sites to determine if they meet the criteria for listing in the California Register. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the California Register, potential adverse impacts to it must be considered. If an archaeological site is considered not to be a historical resource, but meets the definition of a "unique archeological resource" as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.

4.3 Local

Summarized below are the relevant established goals and polices related to cultural resources in the City of Ukiah and the County of Mendocino that are applicable to the Proposed Action.

City of Pleasanton General Plan

The City of Pleasanton has adopted policies and ordinances for the protection and preservation of cultural resources. The City's preservation of cultural resources is accomplished through education, cooperation, and commitment to a program that make sense to the community. The City's commitment is to maintain cultural resources as a link to past populations. Over the years, the importance of preserving cultural resources has been viewed as critical to maintaining history and the quality of life as well as hindering development. However, the City has adopted measures to protect cultural resources and preserving the past as well as accommodating the future. The City's approach is to consider cultural resources as part of the permitting process. With early planning, the protection of cultural resources can usually be integrated into project designs in such a way as to avoid or minimize impacts. The City has developed a cultural resources inventory of known and likely known areas where cultural resources are or likely to be found. The Proposed Action area would not conflict with, impact or be near any known cultural resources identified by the City. Prior to any proposed development, project proponents are required to identify areas of potential conflicts with known cultural resources. The City of Pleasanton's General Plan established the following goals and policies related to cultural resources that are applicable to this project and development within the City.

- **Goal 1: Preserve and enhance Pleasanton's community character.**

- **Goal 2: Preserve and enhance Downtown Pleasanton as a major focus of the community.**

- Policy 1: Encourage the retention, reuse, and enhancement of older buildings of historical importance and architectural heritage.

- **Goal 4: Designate, preserve, and protect the archaeological and historic resources within the Pleasanton Planning Area.**

  - Policy 5: Preserve and rehabilitate those cultural and historic resources that are significant to Pleasanton because of their age, appearance, or history.

  - Program 5.1: When reviewing applications for development projects, use information regarding known archaeological finds in the Planning Area to determine if an archaeological study, construction monitoring or other mitigations are appropriate. Require that archaeological studies meet the requirements of the California Environmental Quality Act Guidelines Section 15064.5 in identifying mitigation measures if an archaeological site is encountered. Include provisions for the interpretation of cultural resources. Consult with the California Archaeological Inventory, Northwest Information Center, as necessary.

  - Program 5.2: Follow the recommendations contained within archaeological and historical architecture studies regarding rehabilitation or preservation of archaeologically or historically significant structures and sites.

  - Program 5.3: Continue to include a standard condition of project approval to require the cessation of all construction and grading activities within the vicinity of any discovered prehistoric or historic artifacts, or other indications of cultural resources, until any such find is evaluated by a qualified professional archaeologist, and appropriate mitigation is approved by the City.

  - Program 5.4: Adopt an historic landmark preservation ordinance to protect individual buildings and sites of historic significance to Pleasanton.

  - Program 5.5: Consider expanding the City's low interest Downtown commercial rehabilitation loan program.

  - Program 5.6: Encourage the use of educational workshops, exhibits, and teaching materials that celebrate the city's ancestral heritage and Native American contributions, and encourage participation by Native American groups in developing such programs.

Section 5 - Investigation Methodology and Results

This section summarizes the investigation methods used to determine the potential for cultural resources to be affected by the Proposed Action.

5.1 Northwest Information Center (NWIC) Record Search

On August 24, 2012, a records search was conducted by staff at the NWIC, Sonoma State University, Rohnert Park, California (NWIC File #13-1672). The record search included the project Area of Potential Effect (APE) and a 0.50-mile radius outside the project boundaries. The record search included reviewing pertinent NWIC base maps that reference cultural resources records and reports, historic period maps, and literature for Alameda County including current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHP), the California Inventory of Historical Resources, California State Historic Landmarks, and the California Points of Historical Interest.

According to information provided by NWIC, this project area contains two-recorded Native American (P-01-000066 and P-01-000139 both burial and habitation sites) and three historic-period archaeological resources (P-01-001775 the Pleasanton canal, P-01-001776 the Arroyo Mocho canal and P-01-001783 the Southern Pacific Railroad).

The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) lists no recorded buildings or structures within the proposed project area.

At the time of Euroamerican contact the Native Americans that lived in the area were speakers of the Chochenyo language, part of the Costanoan language family (Levy 1978:485-495). There are no Native American resources in or adjacent to the proposed project area referenced in the ethnographic literature.

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Alameda County have been found on the banks and mid-slope terraces above seasonal and perennial waterways within the Amador Valley and within Holocene age landforms. The Recycled Water project area is within the Amador Valley adjacent to Tassajara Creek, Laurel Creek and what was Arroyo Las Positas and Arroyo de la Laguna and is within a Holocene age landform. Given the similarity of one or more of these environmental factors, there is a high potential of identifying unrecorded Native American resources in the proposed Recycled Water project area.

Review of historical literature and maps indicated the possibility of historic-period archaeological resources within the Recycled Water project area. The 1871 GLO Plat map of 3 south/1 East, the 1862 GLO Rancho Santa Rita map and the 1863 GLO Rancho Valle de San Jose map all depicted two houses, one named “S.B. Martin” and the other named “J. Bernal’s” within or adjacent to the proposed project area. The *Historic Spots in California* book noted that Rancho Valle de San Jose

was granted to the Bernal family in 1839, while a portion of Rancho Santa Rita was purchased in 1854 by Samuel and J. West Martin (Hoover et al. 1990:14-15, 18). Additionally, the 1906 Livermore USGS 15-minute topographic quadrangle depicts several buildings or structures adjacent to Santa Rita Road and Hopyard Road. With this in mind, there is a moderate potential of identifying unrecorded historic-period archaeological resources in the proposed Recycled Water project area.

The 1942 Livermore USGS 15-minute topographic quadrangle depicts several buildings or structures adjacent to Santa Rita Road. These unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

5.2 Survey Methods

The cultural resources investigation also included a field reconnaissance of the Project APE on February 28, April 15, and May 9, 2014 and no cultural resources, including archeological resources, were identified within the Proposed Action's proposed alignment and construction corridor. Specifically, the Proposed Action would not affect the two-recorded Native American (P-01-000066 and P-01-000139 both burial and habitation sites) and three historic-period archaeological resources (P-01-001775 the Pleasanton canal, P-01-001776 the Arroyo Mocho canal and P-01-001783 the Southern Pacific Railroad). However, the construction of the Proposed Project could uncover unidentified or known buried cultural resources (i.e. Historical, archeological, paleontological, and human remains).

5.3 Native American Heritage Commission Record Search and Outreach

On April 17, 2014, a letter was sent to the Native American Heritage Commission (NAHC) in Sacramento, California in an effort to determine whether any sacred sites listed on its Sacred Lands File are within the current project APE. A response from the NAHC was received on April 29, 2014, stating that a search of its Sacred Land File failed to indicate the presence of Native American cultural resources in the immediate project APE. Included with the response was a list of 10 Native American representatives who may have further knowledge of Native American resources within or near the project APE. To ensure that all Native American concerns are adequately addressed, letters to each of the listed tribal contacts were sent on May 5, 2014, requesting any information about the project that these individuals may have. As of this date, no responses have been received. Follow-up calls and contacts have not produced any formal responses indicating presence of Native American cultural resources in the immediate project APE.

5.4 Conclusions and Recommendations

This investigation was conducted in compliance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 Code of Federal Register [CFR] Part 800). Based upon this investigation, the Proposed Action would not have any significant impacts to cultural resources. Specifically, the proposed Project would have:

- ***No Effect on any known Historical Resources or Properties;***
- ***No Effect on any known Archeological Resources;***

- ***No Effect on any known Paleontological Resources; and***

- ***No Effect on any known Burial Sites.***

However, the construction of the Proposed Project could uncover unidentified or known buried cultural resources (i.e. Historical, archeological, paleontological, and human remains). To further reduce the potential to affect any of these resources, the following several recommendations and mitigation measures should be implemented to ensure that there are no significant impacts to cultural resources that may exist in the APE as direct and indirect result of the Proposed Action.

- **Halt work if cultural resources are discovered.** In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resources shall be halted and after notification, the City shall consult with a qualified archaeologist to assess the significance of the find. If any find is determined to be significant (CEQA Guidelines 15064.5[a][3] or as unique archaeological resources per Section 21083.2 of the California Public Resources Code), representatives of the City and a qualified archaeologist shall meet to determine the appropriate course of action. In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the lead agency shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out.

- **Halt work if paleontological remains are discovered.** If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the City.

- **Halt work if human remains are found.** If human remains are encountered during excavation activities conducted for the Proposed Action, all work in the adjacent area shall stop immediately and the Mendocino County Coroner's office shall be notified. If the Coroner determines that the remains are Native American in origin, the Native American Heritage Commission shall be notified and will identify the Most Likely Descendent, who will be consulted for recommendations for treatment of the discovered human remains and any associated burial goods.

Section 6 - Bibliography

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**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

Attachment A

Native American Correspondence

April 17, 2014

Katy Sanchez
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 94612

Subject: **Sacred Land Files and Native American Contact list Request for the City of Pleasanton's Proposed Recycled Water Project, Alameda County**

Dear Katy:

SMB Environmental is assisting the City of Pleasanton (City) prepare environmental documentation for its proposed Recycled Water Project (Proposed Project). The Proposed Project would consist of the approximately 22-miles of 18-4-inch diameter recycled water pipeline from the Dublin San Ramon Sanitation District's Wastewater Treatment Plant to provide approximately 2,500 acre-feet of tertiary treated recycled water for irrigation landscape and industrial usages within the City limits. All of the pipeline facilities will be located in existing city roadways. The Proposed Project is located within the city limits of the City of Pleasanton and located on Sections 7 and 8, Township 3 South, Range 1 East (S7 T3S R1 and S8 T3S R1E), Mount Diablo Meridian, Alameda County, California.

For purposes of Section 106 compliance, we would appreciate your checking of the Sacred Lands Files to see if there are any culturally sensitive areas within the immediate project vicinity. We would also like to receive a list of Native American organizations that may have knowledge or interest in the Proposed Project area and we will attempt to contact them to solicit their written input/concerns about the Proposed Project.

Thank you for your cooperation and assistance. I look forward to your earliest possible reply. If any questions, please feel free to contact me at 916-517-2189 or at steve@smbenvironmental.com.

Sincerely,

Steve Brown
Principal

Response from NAHC

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 - Fax

April 29, 2014

Steve Brown
SMB Environmental
PO Box 381
Roseville, CA 95661

Re: Recycled Water project, Alameda County

Dear Mr. Brown:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3713.

Sincerely,

Debbie Pilas-Treadway
Environmental Specialist III

Native American Contacts
Alameda County
April 29, 2014

Jakki Kehl
720 North 2nd Street
Patterson , CA 95363
(209) 892-1060

Ohlone/Costanoan

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
240 E, 1st Street
Pomona , CA 91766
rumsen@aol.com
(909) 524-8041 Cell
909-629-6081

Ohlone/Costanoan

Katherine Erolinda Perez
PO Box 717
Linden , CA 95236
canutes@verizon.net
(209) 887-3415

Ohlone/Costanoan
Northern Valley Yokuts
Bay Miwok

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister , CA 95024
ams@indiancanyon.org
831-637-4238

Ohlone/Costanoan

Linda G. Yamane
1585 Mira Mar Ave
Seaside , CA 93955
rumsien123@yahoo.com
831-394-5915

Ohlone/Costanaon

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
PO Box 360791
Milpitas , CA 95036
muwekma@muwekma.org
408-205-9714
510-581-5194

Ohlone / Costanoan

Amah MutsunTribal Band of Mission San Juan Bautista
Irene Zwierlein, Chairperson
789 Canada Road
Woodside , CA 94062
amahmutsuntribal@gmail.com
650-400-4806 cell

650-332-1526 - Fax

Ohlone/Costanoan

The Ohlone Indian Tribe
Andrew Galvan
PO Box 3152
Fremont , CA 94539
chochenyo@AOL.com
(510) 882-0527 - Cell
(510) 687-9393 - Fax

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Amah MutsunTribal Band of Mission San Juan Bautista
Michelle Zimmer
789 Canada Road
Woodside , CA 94062
amahmutsuntribal@gmail.com
(650) 851-7747 - Home

650-332-1526 - Fax

Ohlone/Costanoan

Trina Marine Ruano Family
Ramona Garibay, Representative
30940 Watkins Street
Union City , CA 94587
510-972-0645-home

soaprootmo@comcast.net

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Recycled Water project, Alameda County.

Example Letter to Distribution List from NAHC

May 5, 2014

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3152
Fremont, CA 94539

Subject: **Request for Cultural Resources Sites Information for the Proposed City of Pleasanton Recycled Water Pipeline Project, Alameda County**

Dear Andrew Galvan:

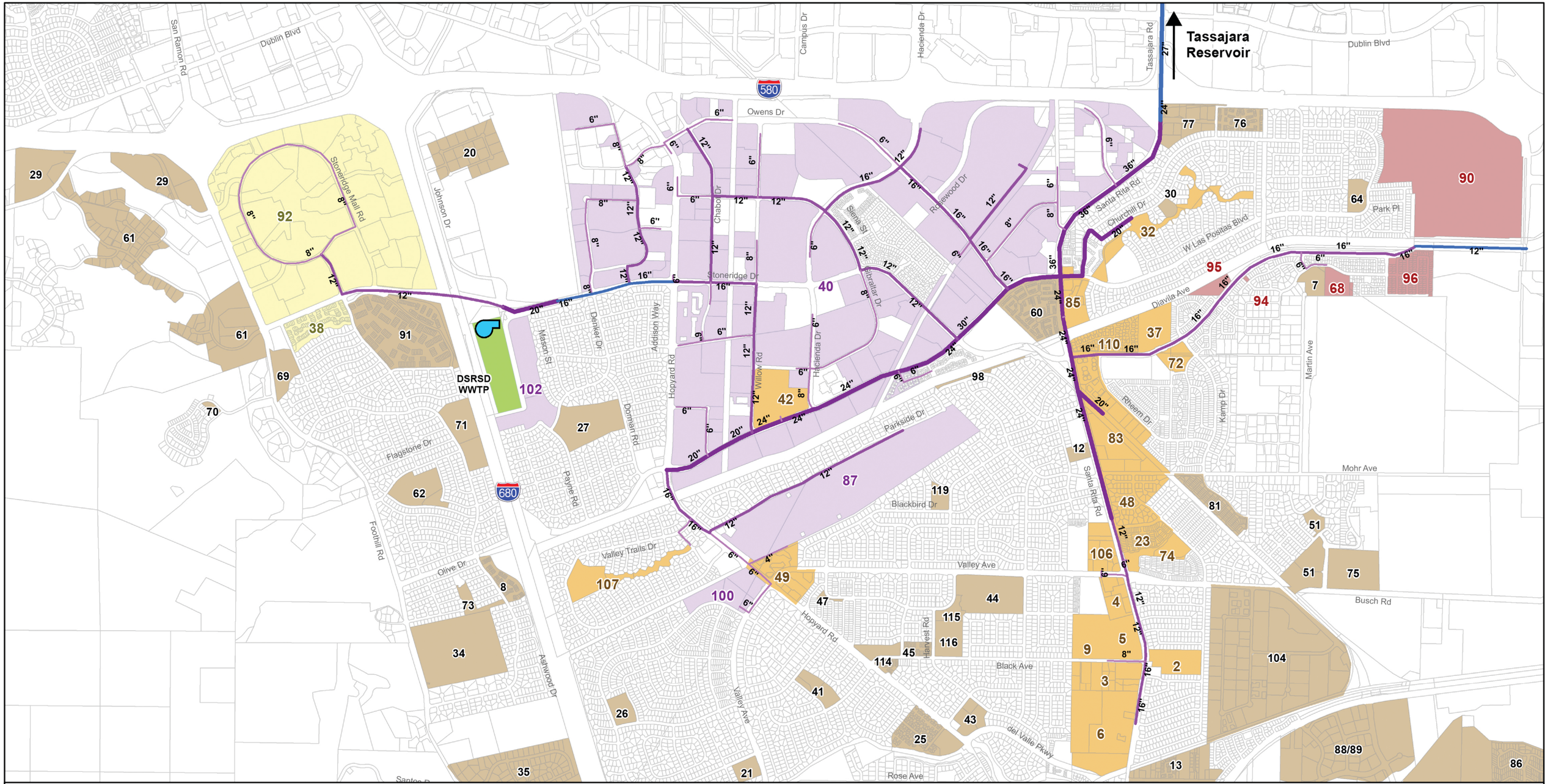
SMB Environmental is assisting the City of Pleasanton (City) prepare environmental documentation for its proposed Recycled Water Project (Proposed Project). The Proposed Project would consist of the approximately 22-miles of 18-4-inch diameter recycled water pipeline from the Dublin San Ramon Sanitation District's Wastewater Treatment Plant to provide approximately 2,500 acre-feet of tertiary treated recycled water for irrigation landscape and industrial usages within the City limits. All of the pipeline facilities will be located in existing City roadways. The Proposed Project is located within the City limits of the City of Pleasanton and on the Livermore, California USGS 7.5 Minute Topographic Map. Please also see attached Project Location Map.

The Native American Heritage Commission was contacted about the Proposed Project and provided us with a list of Native American individuals and organizations that may have knowledge of cultural resources in the project area. Please provide us with any information you may have about cultural resources or sites in the project area so that we can determine ways to protect those sites, including archeological sites and other locations of special value to Native Americans.

Thank you for your cooperation and assistance. I look forward to your earliest possible reply. If any questions, please feel free to contact me at 916-517-2189 or at steve@smbenvironmental.com.

Sincerely,

Steve Brown
Principal



Legend

DSRSD Facilities

- WWTP
- Recycled Water Pump Station

Proposed Recycled Water Pipelines

- 20" and Larger
- 12" - 16"
- 8" and Smaller

Existing Recycled Water Pipelines

- 20" and Larger
- 12" - 16"

- Parcels

Potential Users

- Served by Phase 1 Alignment
- Served by Phase 2 Alignment
- East Option – Staples Ranch area
- West Option – Stoneridge mall area
- Potential Customers not Considered Feasible at this time

0 1,500 3,000 Feet

Figure 2
Proposed Project/Action Facilities
Recycled Water Project
City of Pleasanton