



**STATION 115
2783 MELENDY DRIVE
WATER TANK PROJECT**

CITY OF SAN CARLOS

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION



MARCH 2019

City of San Carlos
600 Elm Street
San Carlos, CA 94070

This page intentionally left blank.

Station 115 - 2783 Melendy Drive Water Tank Project Draft Mitigated Negative Declaration

Project: Station 115 – 2783 Melendy Drive Water Tank Project

Project Proponent / Lead Agency: City of San Carlos

Availability of Documents: The Initial Study for this Mitigated Negative Declaration is available for review at:

City of San Carlos
600 Elm Street
San Carlos, CA 94070
(650) 802-4264
Contact – Lisa Porras, Principal Planner

PROJECT DESCRIPTION

The City of San Carlos Planning Division has received a planning application from the California Water Service Company (Cal Water) for design review to construct a new 350,000-gallon water tank at Station 115 located at 2783 Melendy Drive (proposed project) in the San Carlos hills. The Station 115 site is approximately 1.14-acres in size (Assessor's Parcel Number [APN] 050-180-020) and already contains a 250,000-gallon water tank, a small equipment building, and several cell phone towers. The site is adjacent to Heather School and Heather School Dog Park, and single and multi-family residential areas along Melendy Drive.

The new tank at Station 115 would increase storage capacity within the Bayshore District and improve the efficiency and reliability of the District's water distribution system, especially after a seismic event which may impact distribution lines or electricity for pumping.

Cal Water proposes to begin construction in Spring/Summer 2019 and have the new tank in-service by Fall/Winter 2019. Construction activities would involve:

- 1) survey benchmark, layout, and orientation of tank,
- 2) earthwork for tank foundation,
- 3) tank foundation work, rebar, concreting and curing,
- 4) bolted steel tank erection,
- 5) site piping and electrical tie-ins,
- 6) piping/tank pressure testing and disinfection before water quality sample collection, and
- 7) final approval from Department of Drinking Water (DDW) to commission tank

Cal Water estimates the project would result in 123 cubic yards of cut and 0.3 cubic yards of fill.

PROPOSED FINDINGS

City of San Carlos has reviewed the attached Initial Study and determined that the Initial Study identifies potentially significant project effects, but:

1. Revisions to the project plans incorporated herein as mitigation would avoid or mitigate the effects to a point where no significant effects would occur; and
2. There is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment. Pursuant to California Environmental Quality Act (CEQA) Guidelines Sections 15064(f)(3) and 15070(b), a Mitigated Negative Declaration has been prepared for consideration as the appropriate CEQA document for the project.

BASIS OF FINDINGS

Based on the environmental evaluation presented in the attached Initial Study, the project would not cause significant adverse effects related to aesthetics, agricultural and forestry resources, geology and soils, greenhouse gas emissions, hazards and hazardous emissions, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, and utilities/service systems. The project does not have impacts that are individually limited, but cumulatively considerable.

Design Features

Cal Water has designed the proposed new water tank to be the same color as the existing tank on the site, and landscaping would be used to visually screen the site from surrounding areas to the greatest extent possible given the site's hillside setting.

Environmental Protection Measures

The measures listed in the table below are incorporated into the planning, design, construction, operation, and maintenance of the project to minimize the potential adverse effects of the project on the surrounding community and the environment. Best Management Practices (BMPs) include measures identified by the applicant on the proposed project plans. The City also applies standard Conditions of Approval (COAs) for all projects within the City. For the purposes of this Initial Study, these BMPs and COAs were considered part of the project and not mitigation measures. The impact determinations in Chapter 3.0, Environmental Checklist, and the City's conclusion that the project would not have any significant adverse effects on the environment, assume the implementation of these measures.

Environmental Protection Measures Incorporated in to the Project		Type
Aesthetics	The applicant has submitted a landscaping plan to provide screening to/from adjacent receptors.	BMP
Geology and Soils	Design and construction of the project shall adhere to the recommendations contained in the site specific geotechnical engineering investigation report prepared for this project (Krazan & Associates, June 17, 2014 and updated January 24, 2017).	BMP
Hydrology and Water Quality	<p>Contractor shall apply California Stormwater Quality Association (CASQA) Best Management Practices (BMPs) to prevent water and sediment from entering navigable waterways. The contractor is responsible for identifying and installing the applicable and appropriate BMPs identified in the CASQA handbook. The San Mateo Countywide Pollution Prevention Program Construction Best Management Practices page is included in the Project plans.</p> <p>If paving and storm drain improvements are not completed by October 1, temporary silt and erosion control facilities shall be installed to control and maintain silt deposits and to provide for the safe discharge of storm waters into existing storm drainage facilities.</p> <p>A Storm Water Pollution Control Plan (SWPPP) must be submitted and approved prior to the start of construction.</p> <p>No grading is permitted between Oct 1 and April 30.</p>	BMP

Environmental Protection Measures Incorporated in to the Project		Type
	<p>Wastewater generated during construction shall not be discharged into the storm drain system this includes waste from painting, saw cutting, concrete work, etc. If necessary, the contractor shall provide an area for on-site washing activities during construction. Materials that could contaminate storm runoff shall be stored in areas which are designated to prevent exposure to rainfall and to prevent storm water from entering the area.</p> <p>Flushing of streets/parking lots to remove dirt and construction debris is prohibited unless sediment controls are used. Preferably, areas requiring cleaning shall be swept.</p>	
Noise	<p>Construction activities shall adhere to the City's Standard Construction Noise Control Measures. These include:</p> <ol style="list-style-type: none"> 1) Equip all internal combustion driven engine equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. 2) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum killing time to five (5) minutes (as required by California Airborne Toxics Control Measure Title 13, Section 2485 of the California Code of Regulations (CCR)). Clear signage shall be provided for construction workers at all access points. 3) Locate stationary noise generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. 4) Utilize "quiet" air compressors and other stationary noise sources where technology exists. 5) Route all construction traffic to and from the project area via designated truck routes where possible. Prohibit construction related heavy truck traffic in residential areas where feasible. 6) Control noise from construction worker's radios to a point they are not audible at existing neighbors bordering the project area to the extent feasible. 7) The contractor shall prepare and submit to the City for approval, a detailed construction plan identifying the schedule for major noise-generating construction activities. The applicant shall provide courtesy notice of these activities to all property owners and occupants within 300' of the site with contractor contact information, to the satisfaction of the Building Official. 8) Designate a "Disturbance Coordinator" (applicant or applicant's designee) who will be responsible for 	COA

Environmental Protection Measures Incorporated in to the Project		Type
	responding to any local complaints about construction noise. The Disturbance Coordinator will determine the cause of the noise complaint (e.g. starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.	
Traffic and Transportation	Public safety and traffic control shall be provided in accordance with manual of uniform traffic control devices (MUTCD) and as directed by the City.	COA

Mitigation Measures

The project could result in significant adverse effects to aesthetics, air quality, biological resources, cultural resources, geology, traffic/transportation, and tribal resources. However, the project has been revised to include the mitigation measures listed below, which reduce these impacts to a less-than-significant level. With implementation of these mitigation measures, the project would 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, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. Nor would the project cause substantial adverse effects on humans, either direct or indirect.

Impact AES-1: Failure of the proposed landscaping could leave the tank more visible than planned. The proposed landscaping requires regular evaluation to ensure the intended visual screening is achieved.

Mitigation AES-1: The landscaping planted as part of the landscaping plan shall be evaluated annually by a qualified landscape consultant for health and vigor, for a minimum of five years post-planting. After five years, follow up evaluations shall occur bi-annually (minimum) until 10 years post planting or as directed by the City Planning department. The evaluations shall include an assessment of overall health of the landscaping and recommend additional plantings, modified irrigation, soil amendments, or other recommendations, as necessary, to ensure the landscaping meets the intended screening effect. Any failed landscaping shall be replaced in kind for the life of the project.

Effectiveness: Implementation of the mitigation measure would ensure the proposed landscaping provides the intended screening over time as the vegetation grows.

Implementation: Annual evaluation of health and vigor of the landscaping by a qualified landscape consultant shall occur annually for a minimum of five years post-planting. After the first five years of annual evaluations, follow up evaluations shall occur bi-annually (minimum) or as directed by the City Planning Department until 10 years post-planting and the vegetation is shown to reach the simulated 12-year growth. The measure shall be implemented by the Applicant/owner. Any failed landscaping shall be replaced in kind for the life of the project.

Monitoring: The City shall verify the evaluations are completed as required and conduct follow up to ensure any further recommendations are applied and implemented.

Impact AIR-1: The proposed project has the potential to emit fugitive dust during construction activities.

Mitigation Measure AIR-1: To reduce potential fugitive dust that may be generated by project construction activities, Cal Water shall implement the following BAAQMD basic construction measures when they are appropriate:

- Water all exposed surfaces (e.g., staging areas, soil piles, graded areas, and unpaved access roads) during construction as necessary and adequately wet demolition surfaces to limit visible dust emissions.
- Cover all haul trucks transporting soil, sand, or other loose materials off the project site.
- Use a wet power vacuum street sweeper as necessary to remove all visible mud or dirt track-out onto adjacent public roads (dry power sweeping is prohibited) during construction of the proposed project.
- Vehicle speeds on unpaved roads/areas shall not exceed 15 miles per hour.
- Complete all areas to be paved as soon as possible and lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time of diesel-powered construction equipment to five minutes and post signs reminding workers of this idling restriction at access points and equipment staging areas during construction of the proposed project.
- Maintain and properly tune all construction equipment in accordance with manufacturer's specifications and have a CARB-certified visible emissions evaluator check equipment prior to use at the site.
- Post a publicly visible sign with the name and telephone number of the construction contractor and Cal Water staff person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The publicly visible sign shall also include the contact phone number for the Bay Area Air Quality Management District to ensure compliance with applicable regulations.

Effectiveness: These measures would minimize and/or avoid local impacts from fugitive dust.

Implementation: Cal Water shall include these measures on all appropriate bid, contract, and engineering and site plan (e.g., building, grading, and improvement plans) documents.

Timing: During construction activities.

Monitoring: The City shall review all appropriate bid, contract, and engineering and site plan documents for inclusion of dust control measures.

Impact BIO-1: The proposed project could impact nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code.

Mitigation Measure BIO-1A: To avoid impacts to nesting birds and violation of state and federal laws pertaining to birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) shall occur outside the avian nesting season (that is, prior to February 1 or after August 31) if possible. If construction and construction noise occurs within the avian nesting season (from February 1 to August 31), all suitable

habitats located within the project's area of disturbance including staging and storage areas plus a 250-foot (passerines) and 1,000-foot (raptor nests) buffer around these areas shall be thoroughly surveyed, as feasible, for the presence of active nests by a qualified biologist no more than five days before commencement of any site disturbance activities and equipment mobilization. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, adults are observed carrying food to the nest, or fledglings are using or being fed in the nest or its immediate vicinity. The results of the surveys shall be documented and submitted to the City of San Carlos prior to initiation of project construction.

If it is determined that birds are actively nesting within the survey area, Mitigation Measure BIO-1B shall apply. Conversely, if the survey area is found to be absent of nesting birds, Mitigation Measure BIO-1B shall not be required.

Mitigation Measure BIO-1B: If pre-construction nesting bird surveys result in the location of active nests, no site disturbance and mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place within 250 feet of non-raptor nests and 1,000 feet of raptor nests, or as determined by a qualified biologist in consultation with the California Department of Fish and Wildlife, until the chicks have fledged. Monitoring shall be required to insure compliance with the MBTA and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented and provided to the City of San Carlos.

Effectiveness: This measure would minimize and/or avoid impacts on nesting bird species.

Implementation: By Cal Water or its contractor.

Timing: February 1st through August 31st, no more than five days in advance of the start of project construction.

Monitoring: The biologist shall prepare a written record of survey results, including the implementation of any avoidance and minimization measures, for the City's review. The biologist shall monitor any active nests to determine when young have matured sufficiently to have left the nest.

Impact CUL-1: The proposed project could disturb unknown prehistoric or historic cultural resources, including human remains, during project construction.

Mitigation Measure CUL-1: In the event archaeological resources are unearthed during ground-disturbing activities, all ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where ground disturbing activities shall not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area.

All archaeological resources unearthed by project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. In anticipation of additional discoveries during construction, Archaeological Sensitivity Training will be carried out by a qualified archaeologist for all personnel who will engage in ground moving activities on the site. Should the newly discovered artifacts be determined to be prehistoric, Native

American Tribes/Individuals shall be contacted and consulted, and Native American construction monitoring should be initiated.

The City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. If appropriate, the archaeologist may introduce archaeological monitoring on all or part of the site. An archaeological report will be written detailing all archaeological finds and submitted to the City and the Northwest Information Center (NWIC).

Effectiveness: This measure would minimize and/or avoid impacts on undetected archaeological resources to less than significant levels.

Implementation: By Cal Water or its contractor.

Timing: During all earth disturbing phases of project construction.

Monitoring: An archaeological report will be written detailing all archaeological finds and submitted to the City and the NWIC.

Impact CUL-2: The proposed project could disturb unknown human remains during project construction.

Mitigation Measure CUL-2: If human remains are unearthed during construction of the proposed project, the City shall comply with State Health and Safety Code Section 7050.5. The City shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD).

After the MLD has inspected the remains and the site, they have 48 hours to recommend to the landowner the treatment and/or disposal, with appropriate dignity, the human remains and any associated funerary objects. Upon the reburial of the human remains, the MLD shall file a record of the reburial with the NAHC and the project archaeologist shall file a record of the reburial with the NWIC. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Effectiveness: This measure would minimize and/or avoid impacts on undetected human remains to less than significant levels.

Implementation: By Cal Water or its contractor.

Timing: During all earth disturbing phases of project construction.

Monitoring: A report will be written detailing all finds of undetected human remains and submitted to the City and the NWIC.

Impact GEO-1: The proposed project could disturb unknown paleontological resources during project construction.

Mitigation Measure GEO-1: In the event paleontological resources are unearthed during ground-disturbing activities, all ground-disturbing activities shall be halted so that the find can be evaluated. Construction activities shall not be allowed to continue on the site until a qualified paleontologist has examined the newly discovered artifact(s) and has evaluated the area of the find. All paleontological resources unearthed by project construction activities shall be evaluated by a qualified professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology. In anticipation of additional discoveries during construction, Paleontological Sensitivity Training will be carried out by a qualified archaeologist for all personnel who will engage in ground moving activities on the site. The City shall coordinate with the paleontologist to develop an appropriate treatment plan for the resources. The plan may include implementation of paleontological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. If appropriate, the paleontologist may introduce paleontological monitoring on all or part of the site. A paleontological report will be written detailing all paleontological finds and submitted to the City and University of California Museum of Paleontology at Berkeley (UCMP).

Effectiveness: This measure would minimize and/or avoid impacts on undetected paleontological resources to less than significant levels.

Implementation: By Cal Water or its contractor.

Timing: During all earth disturbing phases of project construction.

Monitoring: A paleontological report will be written detailing all archaeological finds and submitted to the City and the NWIC.

Impact TRA-1. The proposed project may result in temporary construction truck traffic on Melendy Drive and other roadways in the project vicinity which could adversely affect normal traffic, bicycle, or pedestrian travel patterns.

Mitigation Measure TRA-1. Cal Water and/or its contractor shall, prior to the start of construction activities, prepare and implement a construction traffic control plan that shall:

- Prohibit equipment staging (including haul trucks) on residential streets within the City and identify on- and/or off-site construction staging areas with sufficient capacity to store equipment and materials, including soil stockpiles.
- Identify the final construction truck haul route for project soil import and export activities, potential conflicts from the use of this route, such as turning radii, noise and dust issues, or pedestrian conflicts, and the means to reduce potential conflicts, such as flagmen or limiting deliveries and hauling activity times.
- Prohibit construction worker parking on residential streets within the City and identify on- and/or off-site parking areas with sufficient capacity for the number of construction workers involved in the project.
- Schedule construction-related truck traffic to avoid travel during peak periods of traffic on the surrounding roadways (7:00 – 9:00 AM and 4:00 – 6:00 PM) and should also consider and avoid Heather School pick up and drop off times, as feasible.
- The traffic control plan shall also address pedestrian safety on the sidewalk near the site driveway at Melendy Drive.

Effectiveness: This measure would provide vehicle and pedestrian safety during construction.

Implementation: Cal Water shall include these measures on all appropriate bid, contract, and engineering and site plan (e.g., building, grading, and improvement plans) documents.

Timing: Prior to the start of construction activities.

Monitoring: The City shall review all appropriate bid, contract, and engineering and site plan documents for inclusion of traffic control measures.

Impact TRIB-1: The proposed project could disturb or damage unknown tribal cultural resources resulting in an adverse change in the significance of the tribal resource during project construction.

Mitigation Measure TRIB-1: All Native American artifacts and finds suspected to be Native American in nature are to be considered as significant tribal cultural resources until the City of San Carlos has determined otherwise with the consultation of a qualified archaeologist and local tribal representative(s) as directed by the NAHC.

Effectiveness: This measure ensures proper protection of tribal resources should any be discovered during construction.

Implementation: By Cal Water or its contractor.

Timing: During all earth disturbing phases of project construction.

Monitoring: A report will be prepared by a qualified archaeologist detailing all archaeological finds and shall be submitted to the City and the NWIC.

This page intentionally left blank.

**CEQA INITIAL STUDY
2783 MELENDY DRIVE WATER TANK PROJECT**

TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION 1

 1.1 Project Background and Overview 1

 1.2 Regulatory Guidance 2

 1.3 Document Purpose and Organization 2

CHAPTER 2. PROJECT DESCRIPTION 5

 2.1 Project Location And Site Description 5

 2.2 Project Objectives 13

 2.3 Project Components 13

 2.4 Environmental Protection Measures incorporated into The project 24

 2.5 Required Approvals 26

CHAPTER 3. ENVIRONMENTAL CHECKLIST AND RESPONSES 27

 3.1 Aesthetics 31

 3.2 Agricultural and Forestry Resources 53

 3.3 Air Quality 55

 3.4 Biological Resources 59

 3.5 Cultural Resources 67

 3.6 Energy 72

 3.7 Geology and Soils 74

 3.8 Greenhouse Gas Emissions 81

 3.9 Hazards and Hazardous Materials 87

 3.10 Hydrology and Water Quality 91

 3.11 Land Use and Planning 98

 3.12 Mineral Resources 100

 3.13 Noise 101

 3.14 Population and Housing 111

 3.15 Public Services 112

 3.16 Recreation 114

 3.17 Transportation 115

 3.18 Tribal Cultural Resources 118

 3.19 Utilities and Service Systems 122

 3.20 Wildfire 124

 3.21 Mandatory Findings of Significance 128

CHAPTER 4. REFERENCES 130
 CHAPTER 5. LIST OF PREPARERS 134

LIST OF TABLES

Table 2-1 Environmental Protection Measures Incorporated in to the Project24
 Table 3-1. General Plan Policies and Consistency.....49
 Table 3-2. Typical Outdoor and Indoor Noise Levels.....102
 Table 3-3. Existing Ambient Noise Levels (dBA)104
 Table 3-4. Project Construction Equipment Noise Levels107
 Table 3-5. Groundborne Vibration Threshold Criteria109
 Table 3-6. Groundborne Vibration Estimates109

LIST OF FIGURES

Figure 1 Project Location 4
 Figure 2 Aerial View of Project Site 6
 Figure 3 Existing Station 115 Site Photos 7
 Figure 4 Adjacent Views from Off-site10
 Figure 5 Photo Point Locations12
 Figure 6 Site Layout and Grading Plan17
 Figure 7 Electrical Panel Board18
 Figure 8 Piping Connections19
 Figure 9 Site Drainage20
 Figure 10 New Driveway Approach and Guard Rail Detail21
 Figure 11 Water Pollution Control Plan22
 Figure 12 Landscaping Plan.....23
 Figure 13 Distant Views from Off-site.....33
 Figure 14 Visual Simulations.....40
 Figure 15 Noise Monitoring Locations105

APPENDICES

- Appendix A: Peer Review of Visual Simulations
- Appendix B: Biological Resources Species Tables
- Appendix C: Cultural Tribal Correspondence
- Appendix D: Geotechnical Reports
- Appendix E: Greenhouse Gases
- Appendix F: Noise

Chapter 1. Introduction

The City of San Carlos Planning Division has received a planning application from the California Water Service Company (Cal Water) for design review to construct a new water tank (proposed project) at Station 115 located at 2783 Melendy Drive in the San Carlos hills (see Figure 1). The Station 115 site is approximately 1.14-acres in size (Assessor's Parcel Number [APN] 050-180-020) and already contains a 250,000-gallon water tank, a small equipment building, and several cell phone towers. The site is adjacent to Heather School and Heather School Dog Park and single and multi-family residential areas along Melendy Drive. Figure 1 shows the regional setting for the proposed project.

1.1 PROJECT BACKGROUND AND OVERVIEW

Cal Water is the largest investor-owned American water utility west of the Mississippi River. Incorporated in 1926, the company provides water service to 1.7 million Californians. It has 24 separate service areas, or districts, that serve communities in northern and southern California. In the San Francisco Bay Area, Cal Water maintains a network of transmission pipelines, pump stations, and water storage tanks in several distinct service districts. Its Bayshore District was formed in 1931 and currently serves the cities of San Carlos, San Mateo, and South San Francisco. The Bayshore District consists of 52 storage tanks providing 29 million gallons of storage and approximately 510 miles of distribution pipelines.

Cal Water purchases water from the San Francisco Public Utilities Commission (SFPUC) which distributes the City's water from three SFPUC turnouts. The project is located within the San Carlos System of the Bayshore District's Mid-Peninsula Service Area. Within the San Carlos System there are 20 existing storage tanks with a combined capacity of 5.50 million gallons, with an additional 900,000 gallons of storage to be added with two additional tanks that are approved but not yet built.

Based on industry standard, required storage is composed of operational storage, fire flow reserve, and emergency storage. Operational storage is used to supply demand during peak times of the day and is based on industry standard of 25% of maximum day demand. Fire flow reserve is based on requirements of the governing fire department. Emergency water storage provides water supply during non-fire events such as earthquakes and power outages.

The 2008 Water Supply and Facilities Master Plan (Master Plan) (CDM 2008) for the Mid-Peninsula Service Area determined that the San Carlos System has a water storage deficit of 4.2 million gallons (MG). The project site is located within service areas for zones 550 and 715 which have an identified storage deficit of 0.23 MG. Therefore, Cal Water is proposing to construct a new 350,000-gallon water tank at Station 115 to correct the deficit.

The new tank at Station 115 would increase storage capacity within the Bayshore District and improve the efficiency and reliability of the District's water distribution system, especially after a seismic event which may impact distribution lines or electricity for pumping.

Cal Water proposes to begin construction in Spring/Summer 2019 and have the new tank in-service by late Fall/Winter 2019. Construction activities would involve:

- 1) survey benchmark, layout, and orientation of tank,
- 2) earthwork for tank foundation,
- 3) tank foundation work, rebar, concreting and curing,
- 4) bolted steel tank erection
- 5) site piping and electrical tie-ins,
- 6) piping/tank pressure testing and disinfection before water quality sample collection
- 7) final approval from Department of Drinking Water (DDW) to commission tank

Cal Water estimates the project would result in 123 cubic yards of cut and 0.3 cubic yards of fill.

1.2 REGULATORY GUIDANCE

The California Environmental Quality Act (CEQA; Public Resources Code § 21000 et seq.) and the CEQA Guidelines (14 CCR §15000 et seq.) establish the City as the lead agency for the project. The lead agency is defined in CEQA Guidelines Section 15367 as “the public agency which has the principal responsibility for carrying out or approving a project.” The lead agency is responsible for preparing the appropriate environmental review document under CEQA. According to CEQA Guidelines Section 15070, a public agency shall prepare a Negative Declaration or a Mitigated Negative Declaration when:

1. The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
2. The Initial Study identifies potentially significant effects, but:
 - Revisions in the project plans made before a proposed Mitigated Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where no significant effects would occur, and
 - There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Pursuant to Section 15070, the City has determined a Mitigated Negative Declaration is the appropriate environmental review document for the Cal Water Station 115 – 2783 Melendy Drive Water Tank Project.

1.2.1 CEQA Lead Agency Contact Information

The lead agency for the project is the City of San Carlos Planning Division. The contact person for the lead agency is:

Lisa Porras, Principal Planner
City of San Carlos Planning Division
600 Elm Avenue
San Carlos, CA 94070

Email: lporras@sancarlos.com
Phone: (650) 802-4264

1.2.2 Public Outreach

In January 2017, Cal Water mailed notification of and conducted a public outreach meeting regarding this proposed project. This outreach meeting was held on January 28, 2017. Cal Water staff spoke with or met the public to discuss their concerns related to the project. One neighbor attended the meeting who had concerns about the visual impacts of the project. Cal Water considered the public input when designing the project.

1.3 DOCUMENT PURPOSE AND ORGANIZATION

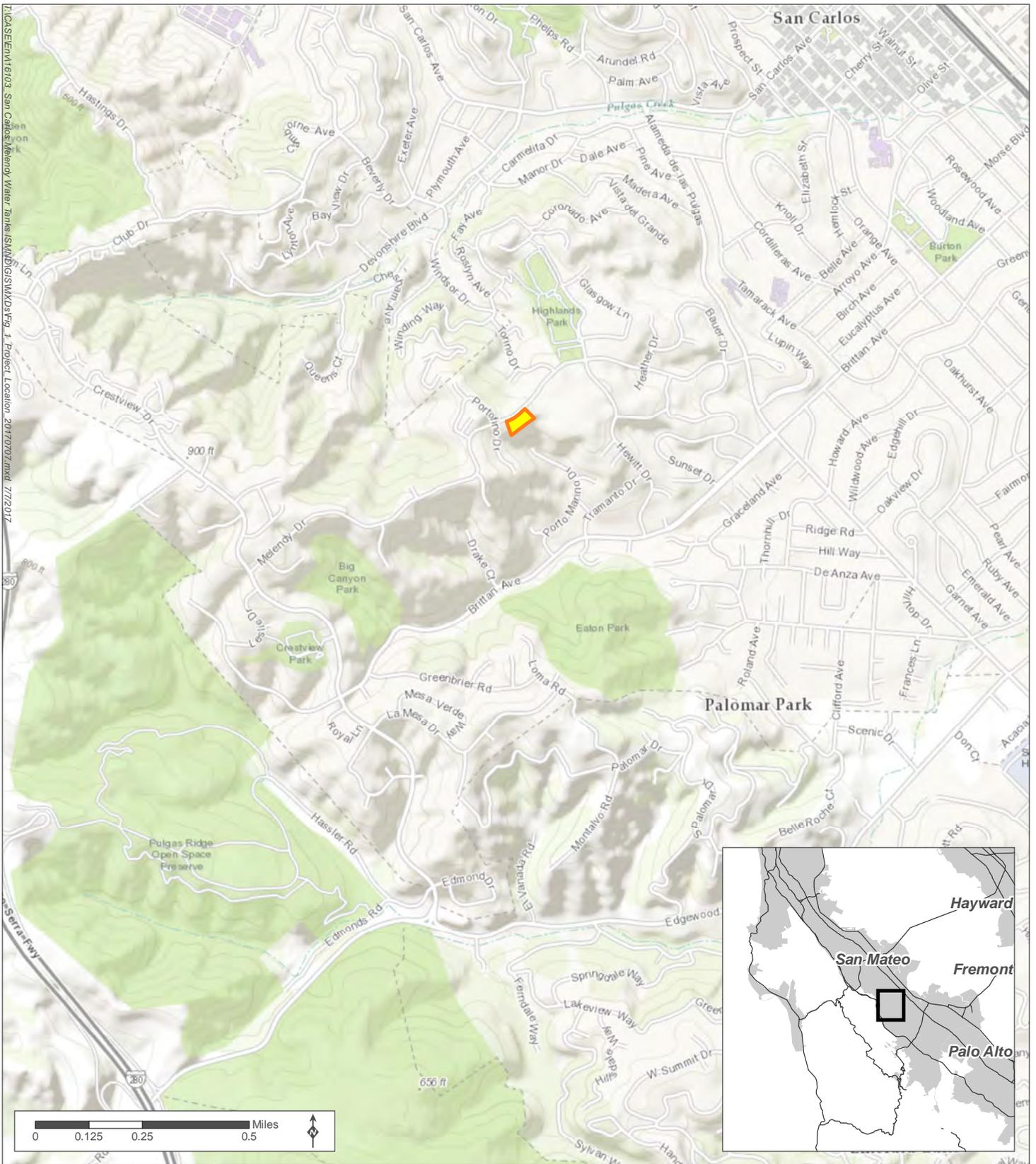
The purpose of this document is to evaluate the potential environmental effects of the Cal Water Station 115 – 2783 Melendy Drive Water Tank Project. This document is organized as follows:

- Chapter 1 – Introduction. This chapter introduces the project and describes the purpose and organization of this document.
- Chapter 2 – Project Description. This chapter describes the project location, area, site, objectives, and characteristics.

- Chapter 3 – Environmental Checklist and Responses. This chapter contains the Environmental Checklist that identifies the significance of potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project. This chapter also contains the Mandatory Findings of Significance.
- Chapter 4 – Report Preparation. This chapter provides a list of those involved in the preparation of this document.

Appendices

- Appendix A: Peer Review of Visual Simulations
- Appendix B: Biological Resources Species Tables
- Appendix C: Cultural Tribal Correspondence
- Appendix D: Geotechnical Reports
- Appendix E: Greenhouse Gases
- Appendix F: Noise



Source: ESRI 2014; San Mateo County Planning Department 2017; MIG 2017

 Project Site

Figure 1 Project Location

2783 Melendy Drive Water Tank Project



Chapter 2. Project Description

Cal Water maintains a complex water distribution system to serve the residents and water users in its Bayshore District, which includes the cities of San Mateo, San Carlos, and South San Francisco. This water distribution system includes 52 storage tanks and approximately 510 miles of distribution pipelines. One of Cal Water's Bayshore District facilities, the Station 115 site, is located at 2783 Melendy Drive in the City of San Carlos (Figure 2). As described in more detail below, the facilities at the site include an existing 250,000-gallon steel water tank, surge tank, booster pump, water pipelines, and other tank-related infrastructure. In addition, the site also accommodates leased telecommunication facilities (cell towers, equipment building, emergency generator). The proposed 350,000-gallon steel-bolted tank is intended to alleviate a storage deficit identified within the San Carlos System and improve system reliability. Cal Water would also make other minor site improvements as described below.

2.1 PROJECT LOCATION AND SITE DESCRIPTION

The proposed project would be located on a 1.14-acre (49,847 sf) parcel at 2783 Melendy Drive (APN 050-180-020) in the southwest portion of the City of San Carlos (City), adjacent to Heather School and Heather Dog Park (see Figure 2). Other land uses surrounding the site include single-family and multi-family residential housing. The site is known as Station 115 within Cal Water's infrastructure.

The parcel is part of a small knoll with the highest point at the center of the site (approximately 540 feet in elevation). Development at the site is concentrated on a flat pad on the eastern portion of the parcel at approximately 515 feet elevation. Beyond the flat pad to the north, east and south, the land steps downward sharply to the adjacent Melendy Drive, Heather School and the dog park. The western portion of the site (including the upper portion of the knoll) is covered in mature vegetation, including native species such as coast live oaks (*Quercus agrifolia*). Melendy Drive slopes downward from west to east along the parcel's northern boundary (approximately 545 feet in elevation at Portofino Drive to approximately 430 feet elevation at Torino Drive). Figure 3 and Figure 4 include on- and off-site photos of the proposed project site. Figure 5 shows the photo point locations on an area map.

2.1.1 Existing Site Facilities / Site Description

The built facilities at the site are concentrated on the eastern portion of the property on a flat pad (see Figure 6). These facilities include an existing 250,000-gallon steel water tank (30 feet high, 36 feet wide), a single 30-horsepower booster pump, surge tank and associated piping, and electrical system infrastructure (i.e., above and below ground electric lines, electrical pole-mounted panel board, and poles), supervisory control and data acquisition (SCADA) system infrastructure (e.g., communication lines), and other minor infrastructure such as protective bollards and perimeter fencing. The flat portions of the site and the steep access driveway (approximately 80 feet long) are asphalt paved. The site is secured by an approximately seven-foot-high chain-link security fence, and access to the site is controlled by a gate at the top of the driveway that fronts Melendy Drive. There is no security lighting currently at the site.

In addition to the water facilities noted, Cal Water leases a portion of the site for telecommunications equipment which include a cell tower (44' 2" tall), a small (12 foot by 16 foot) equipment building, and emergency generator located along the eastern perimeter fence line. There is an additional cell tower (12 feet tall) to the east of the existing 250,000 tank adjacent to the fence line.



Source: ESRI 2017; San Mateo County Planning Department 2017; MIG 2018

 Project Site

Figure 2 Aerial View of Project Site

2783 Melendy Drive Water Tank Project

Figure 3 Existing Station 115 Site Photos



Top – Photo Point 1. View from just outside the perimeter gate to the project site showing telecommunication facilities on the site (44-foot metal tower, building and emergency generator) on the eastern portion of the site. Bottom – Photo Point 2. View of existing Station 115 250,000-gallon tank. The surge tank electrical lines are located to the right of the existing tank in this view. An 8-foot telecommunication pole is located to the left of the existing tank.

Figure 3 Existing Site Photos Continued



Top – Photo Point 3. View from the entrance gate looking west across the hill between the existing tank and Melendy Drive to the right.

The site is an approximately 1.14-acre parcel of land which has an undeveloped western area and the area developed with the existing water tank and communication facilities at the eastern end. Existing pervious (undeveloped) surfaces occupy approximately 43,740 square feet (1.0 acre), or approximately 88 percent of the site. Existing impervious surfaces, including the existing tank roof, small building, and paved asphalt areas total approximately 6,110 square feet (0.14 acres), or approximately 12 percent of the site. The flat paved area of the existing and proposed tank sites currently drains to a stormwater catch basin to the northeast of the existing tank and is conveyed via underground piping to the municipal storm drain at Melendy Drive north of the site. The access driveway drainage sheet flows down the driveway to Melendy Drive (see Figure 4).

The trees on site include a mix of native oaks, imported Monterey pines, and Deodar cedars, which are generally located to the northeast of the proposed tank and on the knoll just to the west of the proposed tank on the project site. Figure 3 and Figure 4 show the trees at and near the existing site.

The site is designated by the City's General Plan as Single Family (6 DU/acre) and the zoning is designated as RS-6 (Residential Single Family, six dwelling units per acre maximum). Public facilities are a permitted use in the RS-6 district. The project meets all standard setback requirements as set forth by San Carlos Municipal Code for the RS-6 Zoning District, Chapter 18.04. Chapter 18.04 also establishes a 28-foot height limitation. However, height exceptions are provided for in Chapter 18.15.060 which allows a maximum height of 38 feet, provided the project meets specified lot coverage requirements. To qualify for the exception, the water tank must not exceed 25% of the lot area, or 10% of the roof area of all on site structures; whichever is less. Additionally, the tank must be located at least 25 feet from any lot line. The proposed tank meets these requirements and therefore qualifies for a maximum vertical height of 38 feet (10 feet above the standard height limit of 28 feet).

Figure 4 Adjacent Views from Off-site

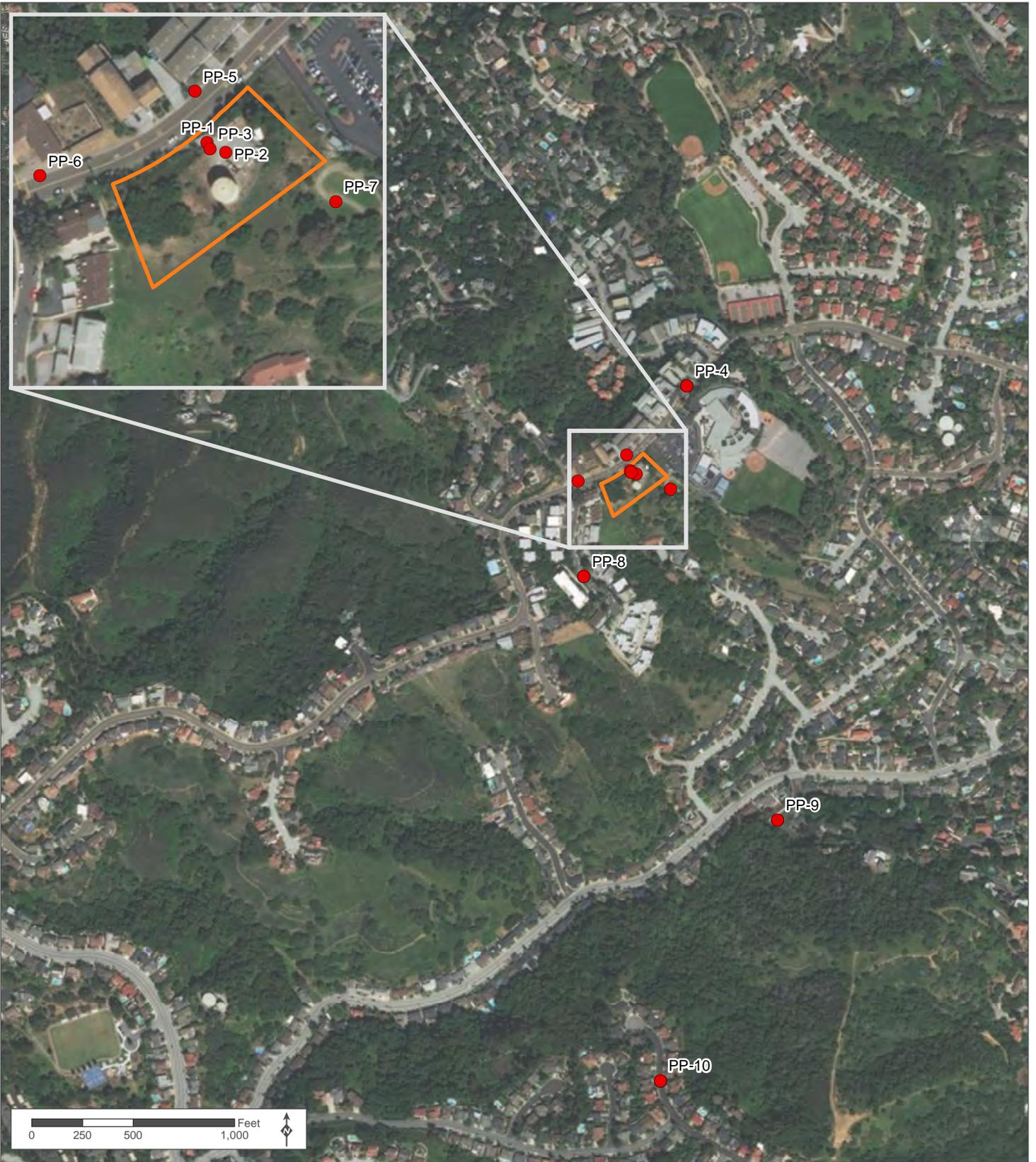


Top – Photo Point 4. View looking west on Melendy Drive towards the project site. Bottom – Photo Point 5. View to the site from across Melendy Drive.

Figure 4 Continued, Adjacent Views from Off-Site



Top – Photo Point 6. View looking east from the intersection of Melendy Drive and Portofino Drive. Site driveway is visible on the right in the photo leading from Melendy up to the project site. Bottom – Photo Point 7. View of site looking north from adjacent Heather Dog Park.



Source: ESRI 2014; San Mateo County Planning Department 2017; MIG 2017

- Project Site
- Photo Location

Figure 5 Photo Point Locations
 2783 Melendy Drive Water Tank Project

2.2 PROJECT OBJECTIVES

The objectives for the Cal Water Station 115 – 2783 Melendy Drive Water Tank Project are to improve system reliability. Specifically, the objectives are:

- To partially satisfy a water storage deficit identified in the 2008 Water Supply and Facilities Master Plan – Mid-Peninsula Service Area of Zones 550 and 715.
- To improve system reliability. The project will partially satisfy the storage requirement of Zones 435 and 490 since the 435 and 490 zones are not connected to the site.
- To provide additional water supply for emergency events such as planned and unplanned supply and power outages.

2.3 PROJECT COMPONENTS

The proposed project would involve the following components: site preparation, foundation installation, construction/installation of the new tank, improvements to the site's electrical and piping connections, landscaping, driveway and sidewalk improvements, and guard rail fencing. These components are described below; the description of the proposed project's components is based on the project plans and drawings prepared for the project by the Engineering Department of Cal Water. A summary of project construction activity (e.g., number of truck trips, staging, etc.) is provided at the end of this section.

2.3.1 Siting Criteria

The proposed 350,000-gallon steel bolted tank would be constructed on a level, asphalt paved area next to an existing 250,000 gallon above-ground water storage tank (see Figure 6). The tank location was chosen because it is in an area that is already flat and paved and would not require significant grading. The tank placement was designed to provide a minimum 8-foot setback from all existing structures and lot lines to allow for access and maintenance.

2.3.2 Tank Specifications

The proposed tank capacity is 350,000 gallons. The bolted steel tank would measure 37.7 feet tall and 45 feet in diameter. The tank foundation would be constructed as a concrete ring wall. This ring wall will require approximately 100 cubic yards of concrete and about 50 tons of ¾-inch crush rock (aggregate) for the center. The tank foundation would be visible at the ground surface as a 3-foot wide concrete apron around the tank and an asphalt swale would also be constructed to direct drainage around the tank. The new tank color is proposed as California Water Service Company (CWS) Grouse Tan which is the same as the existing tank on site.

2.3.3 Appurtenant Tank Features

Electrical System - Power to the existing tank is provided by an overhead pole and pole mounted panel board, located to the northwest of the existing 250,000-gallon tank. This existing pole mounted electrical panel board would be removed and abandoned and replaced with a new electrical panelboard mounted on an in-ground 7-foot by 15-foot foundation pad located on the eastern fence line and surrounded by five protective bollards (see Figure 7). The panelboard would be 72-inches high, by 74-inches wide, and 24-inches deep. The new panelboard color is proposed as CWS Grouse Tan to match the existing and proposed tanks.

Piping Connections – The proposed tank would be fitted with an EBAA iron assembly, fittings, and new 10-inch piping to tie in the new tank with the existing station piping as shown on Figure 8.

Drain Pipe / Catch Basins – The proposed tank would also be installed with a 10-inch overflow drain pipe and concrete catch basin, which would connect to a second new catch basin where it

would tie into the existing 8-inch steel on site storm drain. The area around the drainpipe would be surrounded by a 6-inch curb to prevent drain water from flowing across the site (see Figure 9 for additional detail).

2.3.4 Tank Operations

On site tank maintenance operations would not change significantly as a result of the project. There is an existing 30-horsepower horizontal booster pump which supports the existing tank. The pump is a Peerless Pump Model HSC3AE14, with a design flow of 440 gallons per minute. The existing booster pump operates approximately nine hours per day. With the addition of the new tank, the same booster pump will support a total storage capacity of 600,000 gallons. With the proposed new tank, the pump is expected to operate approximately 22 hours per day.

There is also an 80-hp, on-site emergency back-up generator permitted by the Bay Area Air Quality Management District. It is routinely tested every Wednesday for 10 minutes at 5:00 AM. The proposed project would not result in changes to this routine.

2.3.5 Safety Guard Rail and Asphalt Concrete Berm

The project includes installation of a new safety guard rail and asphalt concrete berm along the northern edge of the entrance driveway (see Figure 10). The guard rail would be a Safety Omega Double Rail Post type system, 3.5 feet in height, with a highly visible OSHA approved omega safety yellow finish. The new AC berm would be 6-inches in height and located along the edge of the driveway pavement. These features are being installed to improve vehicle safety (Cal Water and telecommunication company vehicles) on the steep access driveway.

2.3.6 New Driveway and Sidewalk

The base of the driveway and existing sidewalk would be improved to provide safer vehicle access to the site entrance and improve pedestrian safety along the sidewalk (see Figure 10). Minor improvement to the slope and grade of the driveway meeting the sidewalk and widening the curb cuts for the driveway entrance will improve visibility and maneuverability for vehicles accessing the site. Following installation of the proposed improvements, vehicles entering and exiting the site will only be allowed to enter and exit the site to and from the west (from uphill along Melendy Drive). That is, traffic entering the site will only be allowed from eastbound Melendy Drive, and traffic exiting the site will only be allowed to exit onto westbound Melendy Drive to avoid sharp turns and potentially hazardous traffic conditions. Construction improvements for the sidewalk would occur on City Right-of-Way and would therefore require an Encroachment Permit from the City.

2.3.7 Lighting

Two new lights would be mounted on the south and west sides of the new tank and oriented toward the southwest slope bank adjacent to the proposed tank. The lights would be equipped with motion sensor detection system technology to prevent false tripping from the environment. The lights can pivot and include a visor to focus the light path and area of illumination. The proposed lights would be mounted no more than 24 feet above ground.

2.3.8 Seismic Risk / Tank Failure Design Measures

The geotechnical report prepared for the project identifies that the site is located within seismic Site Class C. The proposed project design is based a geotechnical engineering investigation prepared by Krazan & Associates (June 17, 2014 and updated January 24, 2017). A peer review of the geotechnical report was also prepared by Cotton, Shires and Associates (August 2017).

The tank structure was designed to the latest American Water Works Association (AWWA) seismic standards using the site specific seismic parameters identified in the geotechnical report. In addition, the tank inlet / outlet includes a Flex-tend expansion joint that allows for movement without breakage in the event of a maximum credible earthquake.

2.3.9 Drainage and Storm Water Control

Consistent with the recommendations of the site-specific geotechnical report prepared for the proposed project, Cal Water would ensure the ground surface would slope away from tank pad and pavement areas toward appropriate inlets or other surface drainage devices. As stated above, the proposed tank overflow and drain pipe would be connected to the existing on-site storm drain piping which ultimately connects to the municipal storm drain in Melendy Drive (see Figure 11). The proposed improvements occur in areas of the site that are mostly already covered with pavement. Total site impervious surface area is currently approximately 6,100 SF and would not change significantly as a result of the project as the project proposes to add only 218 SF of new impervious surface at the site. The project would replace approximately 2,450 SF of existing impervious surface at the site (tank roof and pavement). The project would remove approximately 218 SF of existing impervious surface at the site. No additional storm water control features are needed to meet the San Mateo County's C3 storm water requirements.

2.3.10 Landscaping

The landscaping plan (Figure 12) shows the installation of four (4) toyons (*Heteromeles arbutifolia*, 15 gallon size), ten (10) coast live oak trees (24" box size), and 13 Deodar cedar (*Cedrus Monkinn*, 15 gallon size). Native and ornamental shrubs including Bearberry manzanita (*Arctostaphylos uva-ursi*), maritime ceanothus (*Ceanothus maritimus*), red bottlebrush (*Callistemon viminalis*), Benett's white (*Cistus hybrid*), Florida hopbush (*Dodonaea viscosa*), oleander (*Nerium oleander*), Cape plumbago (*Plumbago auriculata*), and rosemary (*Rosemarinus officinalis*) would also be planted. The intent of the landscaping plan is to provide landscaping which will screen views from adjacent receptors (residences on Melendy Drive, Heather Park and Heather School). The replacement trees and shrubs will require temporary irrigation during the dry season (April to October) for the first three years after planting to establish the trees.

2.3.11 Construction Process and Schedule

Cal Water proposes to begin construction in Spring/Summer 2019 and anticipates the new tank would be in-service by late Fall 2019/early 2020. Construction activities would involve:

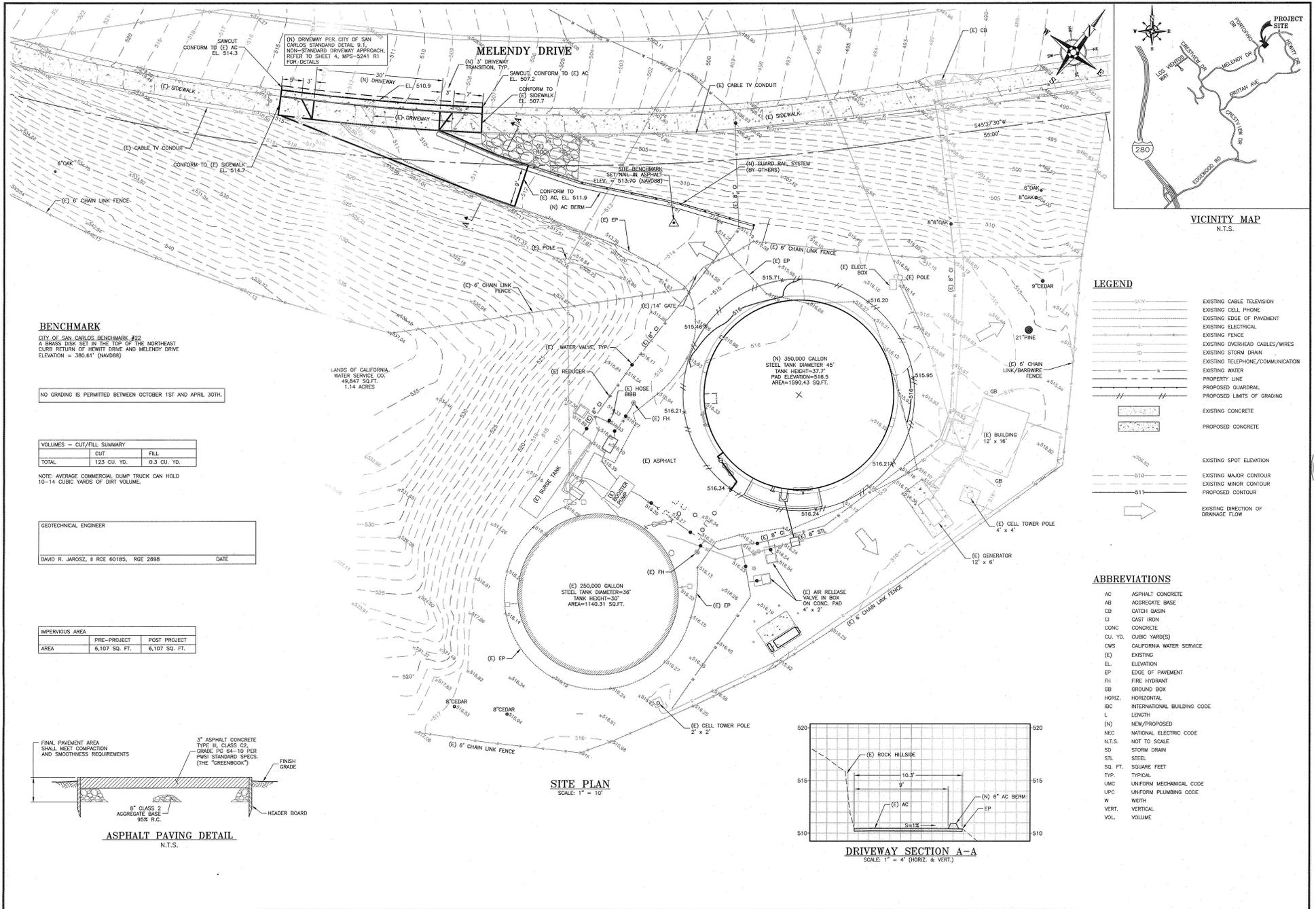
- 1) survey benchmark, layout, and orientation of tank, (one day)
- 2) earthwork for tank foundation, (1.5 weeks, four trips per day)
- 3) tank foundation work, rebar, concreting and curing, (3.5 weeks, three trips per day)
- 4) bolted steel tank erection, (4 months, three trips per day)
- 5) site piping and electrical tie-ins, (2.5 weeks, two trips per day)
- 6) piping/tank pressure testing and disinfection before water quality sample collection, (one week, two trips per day)
- 7) final approval from Department of Drinking Water (DDW) to commission tank

Cal Water estimates the project would result in 123 cubic yards of cut and 0.3 cubic yards of fill.

Equipment required for the foundation installation is two dump trucks, a mini excavator, and a small loader. No pile driving is required. The foundation would require approximately 100 cubic yards of concrete and 50 tons of crush rock (aggregate). The most intensive construction phase, in terms of traffic trips to and from the site is for earthwork during tank foundation construction. This is anticipated to result in four round trips per day for approximately 1.5 weeks.

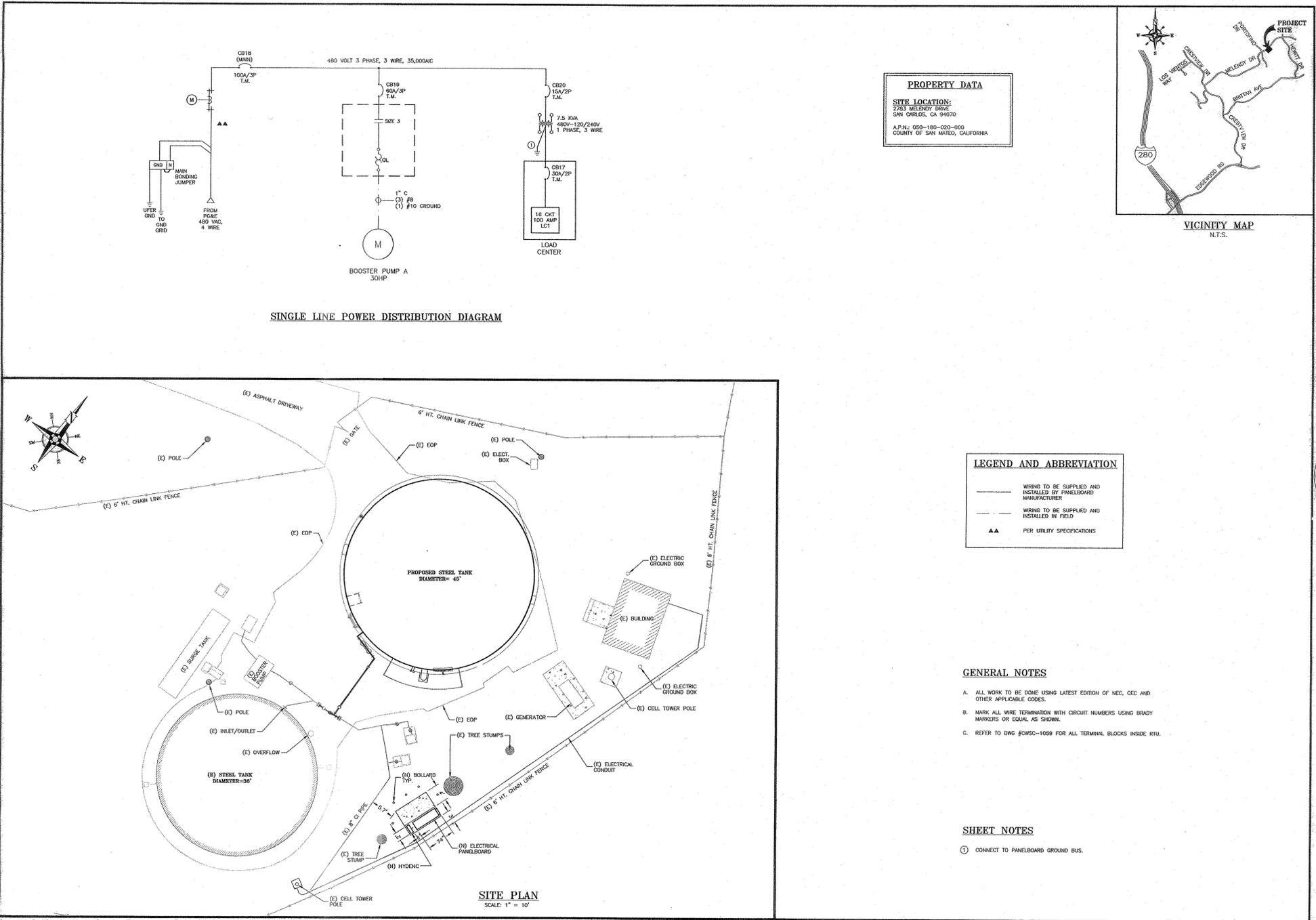
Tank construction would involve the delivery of tank panels and materials on a 40-foot trailer which would be unloaded near or at the site. The tank bottom is laid out by bolting numerous sheets together forming a tank base before tightening the nuts. The bolting would be accomplished using typical air pneumatic drills with a hose connected to a portable air compressor. Next a bottom ring is erected by bolting the bottom ring staves together. Once completely enclosed, all bolts are tightened together to form the first ring wall. The scaffolding is then set by bolting it on the top portion of the first ring wall. The second ring wall is erected in the same manner as the previous. Once completed, the scaffold system is raised up to the top of the second ring wall. The same tank erection method is used to complete remaining 5 ring walls. But, for the top ring wall, the scaffolding is set about 4 feet below the top chime. Next, the center-pole and rafters are set. Once the tank rafters are in, the tank roof panels are installed (one at a time) while bolting the sheets together until fully enclosed. Once completely installed, the roof connections and joints are fully tightened, and all tank nozzles & appurtenances are installed. Upon completion, the tank is then cleaned out & the tank bottom is vacuum tested. Once vacuum tested, the tank is disinfected, closed-up and ready to be water filled.

Although the exact number of workers is unknown and would fluctuate depending on the phase, Cal Water anticipates construction would require a maximum of three to six workers on site at a time.

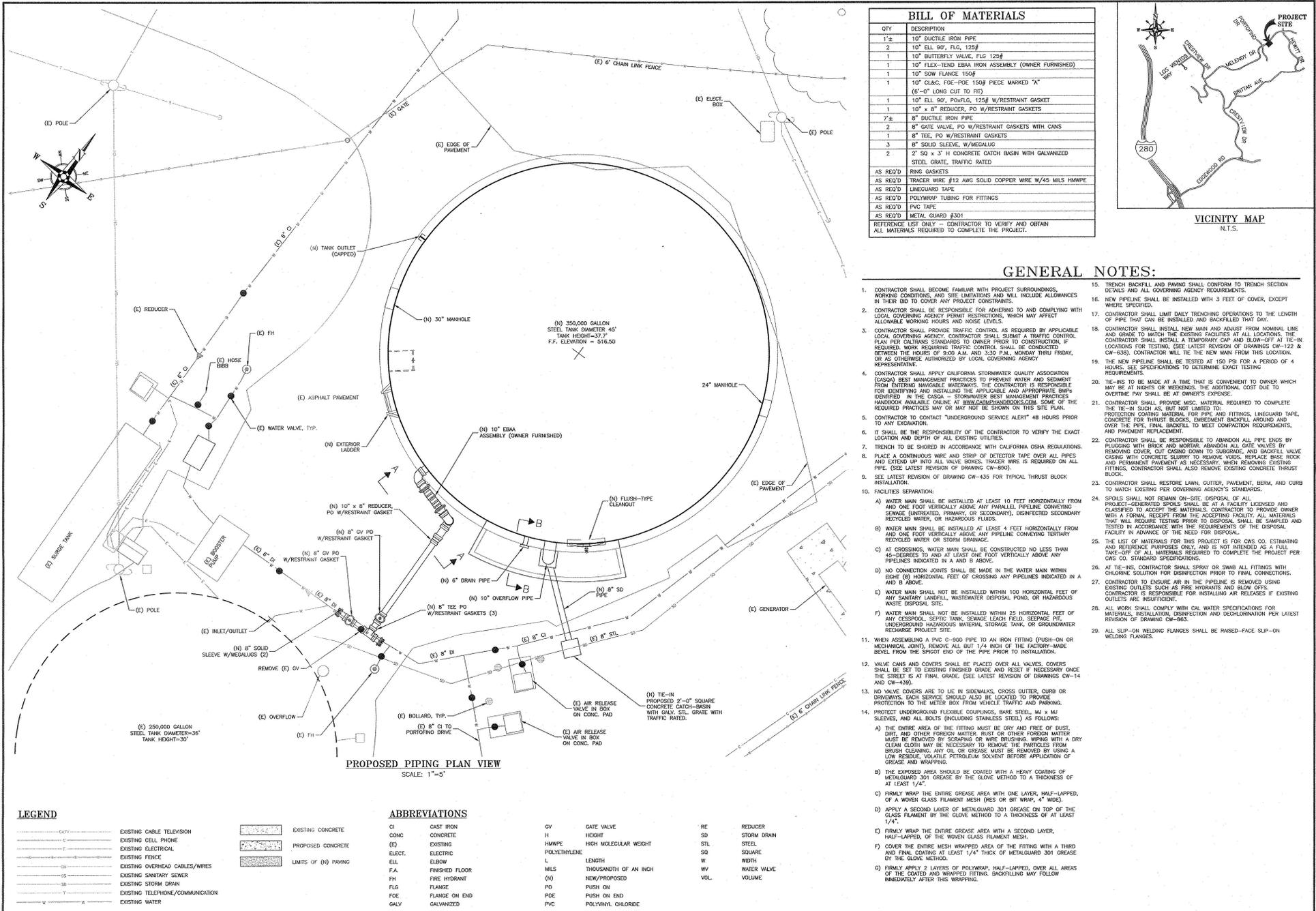


Source: California Water Service Engineering Dept. 2017

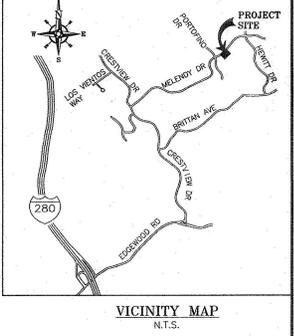
Figure 6 Site Layout and Grading Plan
 2873 Melendy Drive Water Tank Project



Source: California Water Service Engineering Dept, 2016



BILL OF MATERIALS	
QTY	DESCRIPTION
17±	10" DUCTILE IRON PIPE
2	10" ELL 90°, FLG, 125#
1	10" BUTTERFLY VALVE, FLG 125#
1	10" FLEX-TEND EBAA IRON ASSEMBLY (OWNER FURNISHED)
1	10" SOW FLANGE 150#
1	10" CLAC, FOC-POE 150# PIECE MARKED "A"
(6'-0" LONG CUT TO FIT)	
1	10" ELL 90°, POLYFLG, 125# W/RESTRAINT GASKET
1	10" x 8" REDUCER, PO W/RESTRAINT GASKETS
7±	8" DUCTILE IRON PIPE
2	8" GATE VALVE, PO W/RESTRAINT GASKETS WITH CANS
1	8" TEE, PO W/RESTRAINT GASKETS
3	8" SOLID SLEEVE, W/MEDALLIG
2	2' SQ x 3' H CONCRETE CATCH BASIN WITH GALVANIZED STEEL GRATE, TRAFFIC RATED
AS REQ'D	RING GASKETS
AS REQ'D	TRACER WIRE #12 AWG SOLID COPPER WIRE #45 MIL HMWPE
AS REQ'D	LINEGUARD TAPE
AS REQ'D	POLYWRAP TUBING FOR FITTINGS
AS REQ'D	PVC TAPE
AS REQ'D	METAL GUARD #301
REFERENCE LIST ONLY - CONTRACTOR TO VERIFY AND OBTAIN ALL MATERIALS REQUIRED TO COMPLETE THE PROJECT.	



GENERAL NOTES:

- CONTRACTOR SHALL BECOME FAMILIAR WITH PROJECT SURROUNDINGS, WORKING CONDITIONS, AND SITE LIMITATIONS AND WILL INCLUDE ALLOWANCES IN THEIR BID TO COVER ANY PROJECT CONSTRAINTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO AND COMPLYING WITH LOCAL GOVERNING AGENCY PERMIT REGULATIONS, WHICH MAY AFFECT ALLOWABLE WORKING HOURS AND NOISE LEVELS.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY APPLICABLE LOCAL GOVERNING AGENCY. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR CALIFORNIA HIGHWAYS TO CONFORM TO CONSTRUCTION IF REQUIRED. WORK REQUIRED TRAFFIC CONTROL SHALL BE CONDUCTED BETWEEN THE HOURS OF 6:00 AM MONDAY THRU FRIDAY, OR AS OTHERWISE AUTHORIZED BY LOCAL GOVERNING AGENCY REPRESENTATIVE.
- CONTRACTOR SHALL APPLY CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) BEST MANAGEMENT PRACTICES TO PREVENT WATER AND SEDIMENT FROM ENTERING NEARBY WATERWAYS. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND INSTALLING THE APPLICABLE AND APPROPRIATE BMPs IDENTIFIED IN THE CASQA COMMUNITY BEST MANAGEMENT PRACTICES HANDBOOK AVAILABLE ONLINE AT WWW.CASQAHANDBOOKS.COM. SOME OF THE REQUIRED PRACTICES MAY OR MAY NOT BE SHOWN ON THIS SITE PLAN.
- CONTRACTOR TO CONTACT "UNDERGROUND SERVICE ALERT" 48 HOURS PRIOR TO ANY EXCAVATION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES.
- TRENCH TO BE SHORED IN ACCORDANCE WITH CALIFORNIA OSHA REGULATIONS.
- PLACE A CONTINUOUS WIRE AND STRIP OF DETECTOR TAPE OVER ALL PIPES AND EXTEND UP INTO ALL VALVE BOXES. TRACER WIRE IS REQUIRED ON ALL PIPE. (SEE LATEST REVISION OF DRAWING CW-800).
- SEE LATEST REVISION OF DRAWING CW-435 FOR TYPICAL THRUST BLOCK INSTALLATION.
- FACILITIES SEPARATION:
 - WATER MAIN SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE ANY PARALLEL PIPELINE CONVEYING SEWAGE (UNSATURATED, PRIMARY, OR SECONDARY), UNSATURATED SECONDARY RECYCLED WATER, OR HAZARDOUS FLUIDS.
 - WATER MAIN SHALL BE INSTALLED AT LEAST 4 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE ANY FIRE LINE CONVEYING RECYCLED WATER OR STORM DRAINAGE.
 - AT CROSSINGS, WATER MAIN SHALL BE CONSTRUCTED NO LESS THAN 45-DEGREES TO AND NOT LESS THAN ONE FOOT VERTICALLY ABOVE ANY PIPELINES INDICATED IN A AND B ABOVE.
 - NO CONNECTOR JOINTS SHALL BE MADE IN THE WATER MAIN WITHIN (6) HORIZONTAL FEET OF CROSSING ANY PIPELINES INDICATED IN A AND B ABOVE.
 - WATER MAIN SHALL NOT BE INSTALLED WITHIN 100 HORIZONTAL FEET OF ANY SANITARY LANDFILL, WASTEWATER DISPOSAL POND, OR HAZARDOUS WASTE DISPOSAL SITE.
 - WATER MAIN SHALL NOT BE INSTALLED WITHIN 25 HORIZONTAL FEET OF ANY CESSPOOL, SEPTIC TANK, SEWAGE LEACH FIELD, SEEPAGE PIT, UNDERGROUND HAZARDOUS MATERIAL STORAGE TANK, OR GROUNDWATER RECHARGE PROTECTION SITE.
- WHEN ASSEMBLING A PVC C-900 PIPE TO AN IRON FITTING (PUSH-ON OR MECHANICAL JOINT), REMOVE ALL BUT 1/4 INCH OF THE FACTORY-MADE LEVEL FROM THE SPIGOT END OF THE PIPE PRIOR TO INSTALLATION.
- VALVE CANS AND COVERS SHALL BE PLACED OVER ALL VALVES. COVERS SHALL BE SET TO EXISTING FINISHED GRADE AND RESET IF NECESSARY ONCE THE STREET IS AT FINAL GRADE. (SEE LATEST REVISION OF DRAWINGS CW-14 AND CW-439).
- NO VALVE COVERS ARE TO BE IN SIDEWALKS, CROSS CUTTER, CURB OR DRIVEWAYS. EACH SERVICE SHOULD ALSO BE LOCKED TO PROVIDE PROTECTION TO THE METER BOX FROM VEHICLE TRAFFIC AND PARKING.
- PROTECT UNDERGROUND FLEXIBLE COUPLINGS, BARE STEEL, M x M SLEEVES, AND ALL BOLTS (INCLUDING STAINLESS STEEL) AS FOLLOWS:
 - THE ENTIRE AREA OF THE FITTING MUST BE DRY AND FREE OF DUST, DIRT, AND OTHER FOREIGN MATTER. RUST OR OTHER FOREIGN MATTER MUST BE REMOVED BY SCOURING OR WIRE BRUSHING. WIPING WITH A DRY CLEAN CLOTH MAY BE NECESSARY TO REMOVE THE PARTICLES FROM BRUSH CLEANING. ANY OIL OR GREASE MUST BE REMOVED BY USING A LOW RESIDUE, VOLATILE PETROLEUM SOLVENT BEFORE APPLICATION OF GREASE AND WRAPPING.
 - THE EXPOSED AREA SHOULD BE COATED WITH A HEAVY COATING OF METALGUARD 301 GREASE BY THE GLOVE METHOD TO A THICKNESS OF AT LEAST 1/4".
 - FIRMLY WRAP THE ENTIRE GREASE AREA WITH ONE LAYER, HALF-LAPPED, OF A WOVEN GLASS FILAMENT MESH (RES OR BIT WRAP, 4" WIDE).
 - APPLY A SECOND LAYER OF METALGUARD 301 GREASE ON TOP OF THE GLASS FILAMENT BY THE GLOVE METHOD TO A THICKNESS OF AT LEAST 1/4".
 - FIRMLY WRAP THE ENTIRE GREASE AREA WITH A SECOND LAYER, HALF-LAPPED, OF THE WOVEN GLASS FILAMENT MESH.
 - COVER THE ENTIRE MESH WRAPPED AREA OF THE FITTING WITH A THIRD AND FINAL COATING AT LEAST 1/4" THICK OF METALGUARD 301 GREASE BY THE GLOVE METHOD.
 - FIRMLY APPLY 2 LAYERS OF POLYWRAP, HALF-LAPPED, OVER ALL AREAS OF THE COATED AND WRAPPED FITTING. BACKFILLING MAY FOLLOW IMMEDIATELY AFTER THIS WRAPPING.

LEGEND

- (C)--- EXISTING CABLE TELEVISION
- (E)--- EXISTING CELL PHONE
- (E)--- EXISTING ELECTRICAL
- (E)--- EXISTING FENCE
- (E)--- EXISTING OVERHEAD CABLES/WIRES
- (E)--- EXISTING SANITARY SEWER
- (E)--- EXISTING STORM DRAIN
- (E)--- EXISTING TELEPHONE/COMMUNICATION
- (E)--- EXISTING WATER
- (C)--- EXISTING CONCRETE
- (C)--- PROPOSED CONCRETE
- (N)--- LIMITS OF (N) PAVING

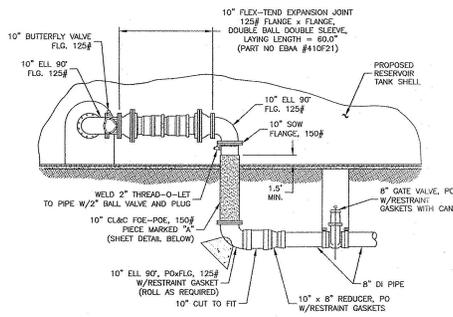
ABBREVIATIONS

- CI CAST IRON
- CONC CONCRETE
- (C) EXISTING
- ELECT. ELECTRIC
- ELL. ELBOW
- FA. FINISHED FLOOR
- FLG. FIRE HYDRANT
- FLG. FLANGE
- FOE. PUSH ON END
- FOE. GALVANIZED
- GV. GATE VALVE
- H. HEIGHT
- HMWPE. HIGH MOLECULAR WEIGHT POLYETHYLENE
- L. LENGTH
- M. THOUSANDTH OF AN INCH
- (N) NEW/PROPOSED
- FLG. FLANGE
- FOE. PUSH ON END
- PVC. POLYVINYL CHLORIDE
- GV. GATE VALVE
- H. HEIGHT
- HMWPE. HIGH MOLECULAR WEIGHT POLYETHYLENE
- L. LENGTH
- M. THOUSANDTH OF AN INCH
- (N) NEW/PROPOSED
- FLG. FLANGE
- FOE. PUSH ON END
- PVC. POLYVINYL CHLORIDE
- RE. REDUCER
- SD. STORM DRAIN
- STL. STEEL
- SG. SQUARE
- W. WIDTH
- WV. WATER VALVE
- VOL. VOLUME

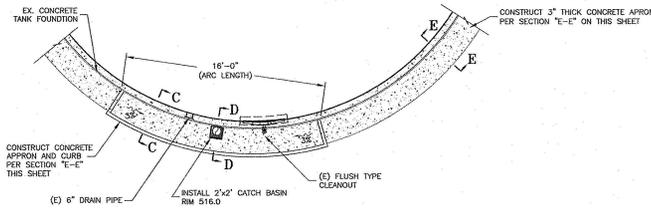
Source: California Water Service Engineering Dept., 2017

Figure 8 Piping Connections
2873 Melendy Drive Water Tank Project

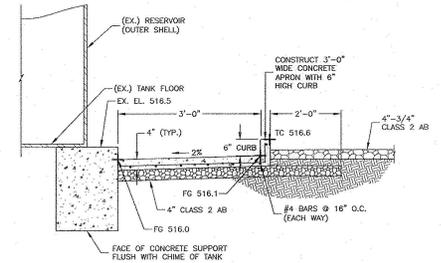




SECTION A-A
N.T.S.

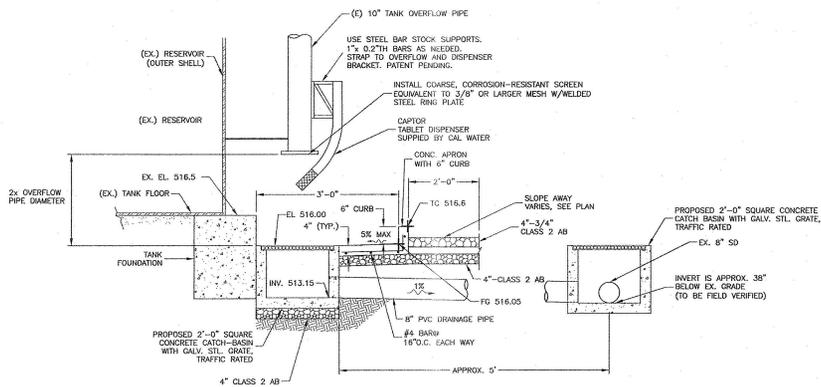


SECTION "B-B"
CONCRETE APRON AND ASPHALT SWALE DETAIL
N.T.S.



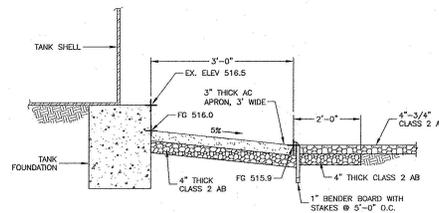
- NOTES:**
- SUBGRADE FOR TANK TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).
 - CONTINUOUS RINOWALL FOOTING TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).
 - EXCAVATION/SCARIFICATION OF THE SUBGRADE TO THE MAINTENANCE AREA OF THE SITE TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).

SECTION "C-C"
N.T.S.



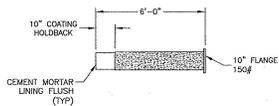
- NOTES:**
- SUBGRADE FOR TANK TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).
 - CONTINUOUS RINOWALL FOOTING TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).
 - EXCAVATION/SCARIFICATION OF THE SUBGRADE TO THE MAINTENANCE AREA OF THE SITE TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).

SECTION "D-D"
N.T.S.



- NOTES:**
- SUBGRADE FOR TANK TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).
 - CONTINUOUS RINOWALL FOOTING TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).
 - EXCAVATION/SCARIFICATION OF THE SUBGRADE TO THE MAINTENANCE AREA OF THE SITE TO BE IN CONFORMANCE PER KRAZEN & ASSOCIATES, INC., GEOTECHNICAL REPORT (PROJECT No. 042-14011).

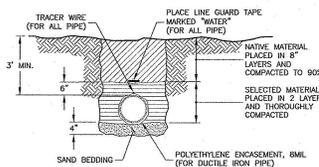
SECTION "E-E"
N.T.S.



PIECE MARKING	QTY	PIPE SIZE (OD)	SCH.	CMIL	CMC
A	1	10.75"	20	1/2"	3/4"

CEMENT MORTAR LINING, CML
CEMENT MORTAR COATING, CMC

CL&C FABRICATION DETAIL
N.T.S.



ON-SITE TRENCH DETAIL
N.T.S.

DROP-INLET			
MODEL NO.	A	B	# WEIGHT
D1242436	36"	42"	1900 LBS.
D1242448	48"	54"	2500 LBS.
#BOX ONLY			

FRAME AND GRATE			
MODEL NO.	RATING	D	WEIGHT
S22424-DIP PEDESTAL	1/2"	41 LBS.	
S22424-BIT TRAFFIC	3"	120 LBS.	

FRAME MAY BE CAST DIRECTLY INTO BOX (OPTIONAL)

18" x 31" THIN WALL KNOCKOUTS, SLEDGE CUT AS REQUIRED, (TYP. 4 PLACES)

INSIDE HEIGHT OF BOX

OUTSIDE HEIGHT OF BOX

OPTIONAL EXTENSION HEIGHT

EXTENSION		
MODEL NO.	C	WEIGHT
RS242406	6"	300 LBS.
RS242412	12"	600 LBS.

■ FRAME AND GRATE ASSEMBLY AVAILABLE IN TRAFFIC OR PEDESTAL MODELS.

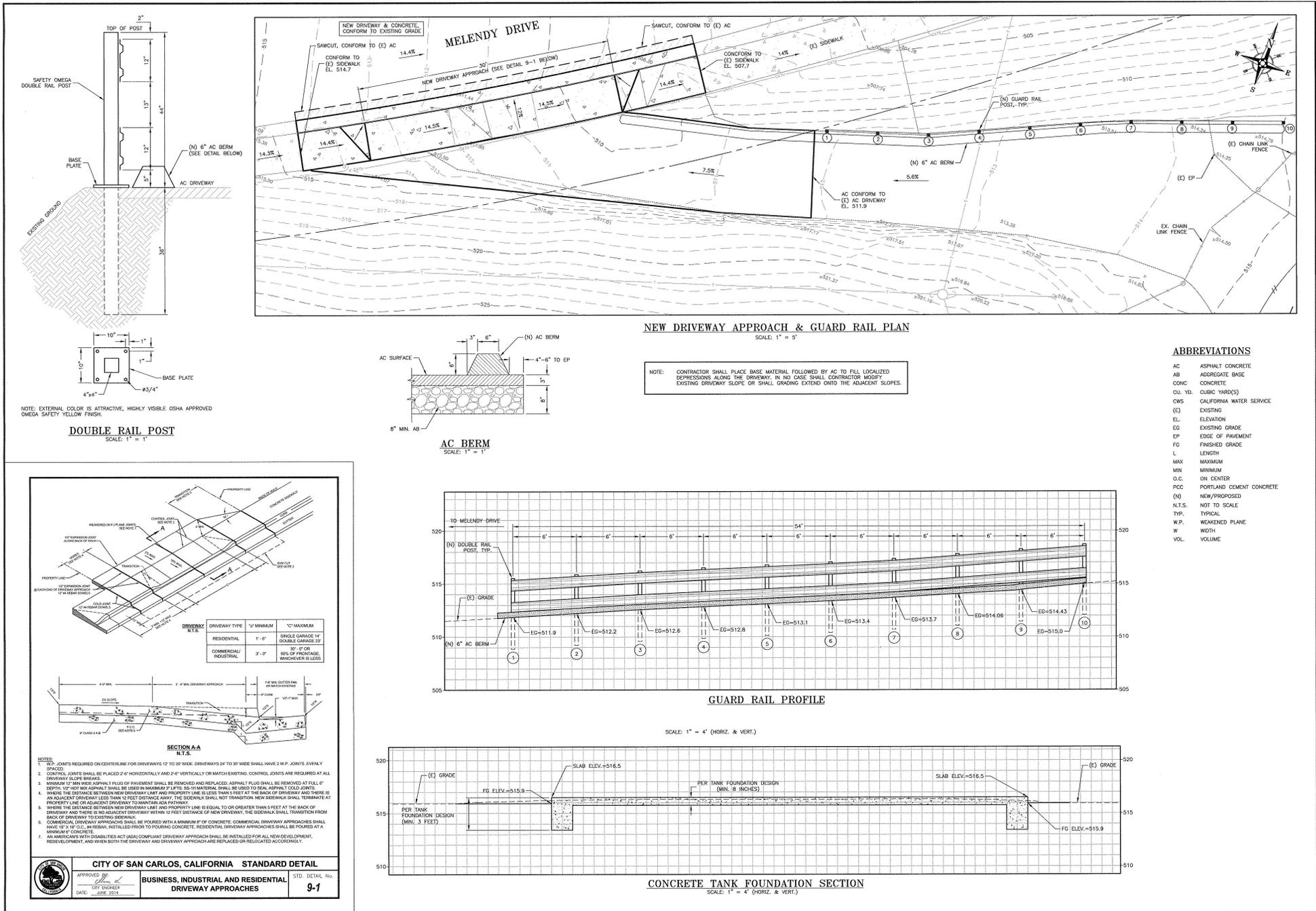
■ FRAME AND SOLID COVER ASSEMBLY AVAILABLE IN TRAFFIC OR PEDESTAL MODELS.

■ DESIGN FOR H-20-44 BRIDGE LOADINGS.

■ ASSEMBLY TO BE PLACED ON A 6" BASE OF CRUSHER RUN FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.

■ FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.

24" X 24" DRAIN INLET	JENSEN PRECAST
11-29-20	D12424

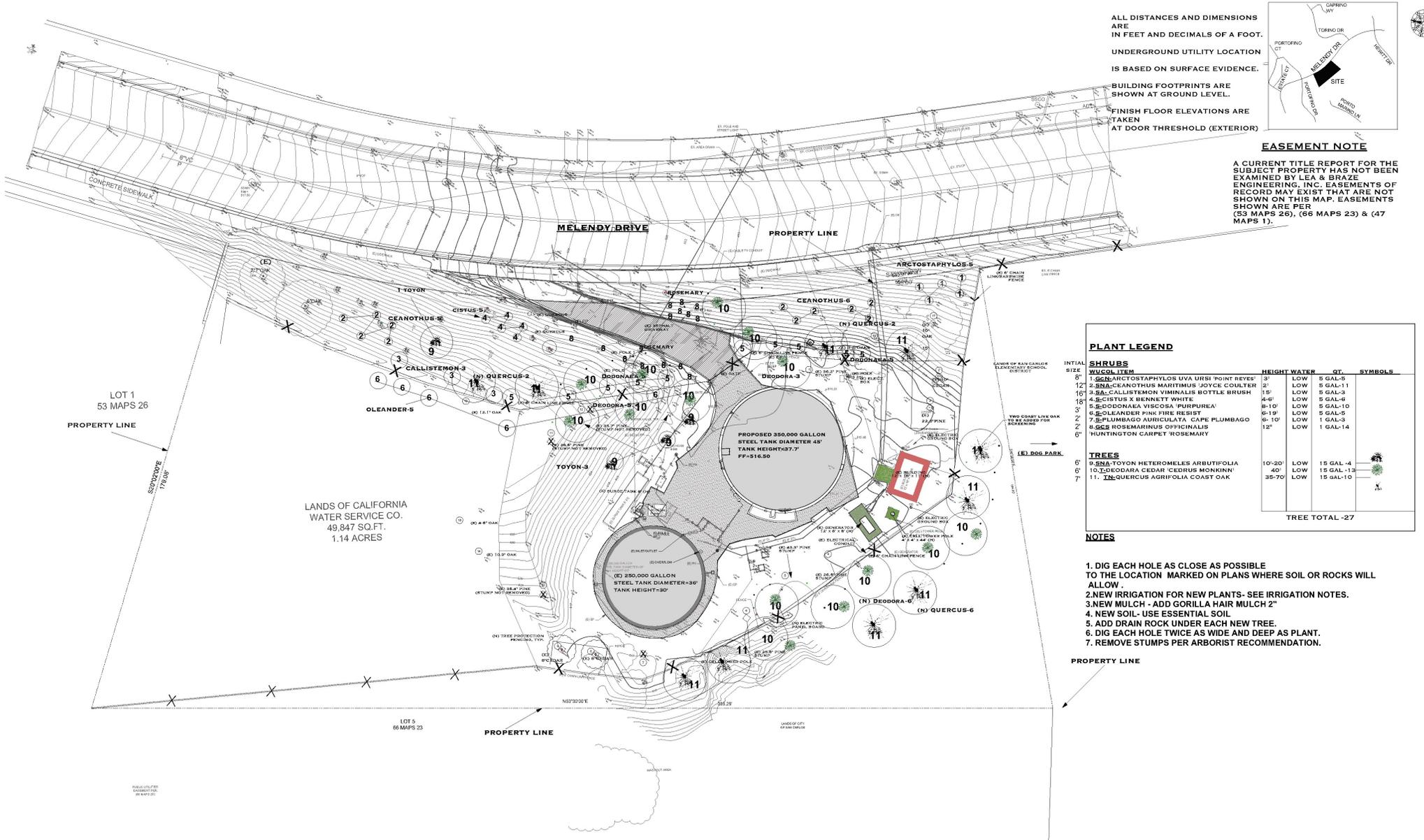


Source: California Water Service Engineering Dept. 2017

Figure 10 New Driveway Approach and Guard Rail Detail

2873 Melendy Drive Water Tank Project





ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS OF A FOOT.

UNDERGROUND UTILITY LOCATION IS BASED ON SURFACE EVIDENCE.

BUILDING FOOTPRINTS ARE SHOWN AT GROUND LEVEL.

FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR)



EASEMENT NOTE

A CURRENT TITLE REPORT FOR THE SUBJECT PROPERTY HAS NOT BEEN EXAMINED BY LEA & BRAZE ENGINEERING, INC. EASEMENTS OF RECORD MAY EXIST THAT ARE NOT SHOWN ON THIS MAP. EASEMENTS SHOWN ARE PER (53 MAPS 26), (66 MAPS 23) & (47 MAPS 1).

PLANT LEGEND

INITIAL SIZE	SHRUBS	HEIGHT	WATER	QT.	SYMBOLS
12"	1. <i>ARCTOSTAPHYLOS UVA URSI</i> POINT REVER	3'	LOW	5 GAL-5	
12"	2. <i>ARCTOSTAPHYLOS VIMINALIS</i> JOYCE COLLIER	3'	LOW	5 GAL-3	
18"	3. <i>CALLISTEMON VIMINALIS</i> BOTTLE BRUSH	15'	LOW	5 GAL-3	
18"	4. <i>CESTIS</i> X BENNETT WHITE	4-6'	LOW	5 GAL-6	
3"	5. <i>DEODONAEA VISCOSA</i> 'PURPUREA'	8-10'	LOW	5 GAL-10	
2"	6. <i>OLEANDER</i> PINK FIRE RESIST	6-15'	LOW	5 GAL-5	
2"	7. <i>PLUMBAGO ARRIBULATA</i> CAPE PLUMBAGO	6-10'	LOW	1 GAL-3	
2"	8. <i>ROSEMARINUS OFFICINALIS</i>	12"	LOW	1 GAL-14	
6"	9. <i>HUNTINGTON CARPET ROSEMARY</i>				
6"	10. <i>TOYON HETEROMELES ARBUTIFOLIA</i>	10'-20'	LOW	15 GAL-4	
6"	11. <i>DEODARA CEDAR 'CEDRUS MONKINI'</i>	40'	LOW	15 GAL-13	
7"	12. <i>QUERCUS AGRIFOLIA</i> COAST OAK	35-70'	LOW	15 GAL-10	

TREE TOTAL -27

NOTES

1. DIG EACH HOLE AS CLOSE AS POSSIBLE TO THE LOCATION MARKED ON PLANS WHERE SOIL OR ROCKS WILL ALLOW.
2. NEW IRRIGATION FOR NEW PLANTS - SEE IRRIGATION NOTES.
3. NEW MULCH - ADD GORILLA HAIR MULCH 2"
4. NEW SOIL - USE ESSENTIAL SOIL
5. ADD DRAIN ROCK UNDER EACH NEW TREE
6. DIG EACH HOLE TWICE AS WIDE AND DEEP AS PLANT.
7. REMOVE STUMPS PER ARBORIST RECOMMENDATION.

Source: Landscape Reflections, 2018

Figure 12 Landscaping Plan
273 Melendy Drive Water Tank Project



2.4 ENVIRONMENTAL PROTECTION MEASURES INCORPORATED INTO THE PROJECT

The measures listed in Table 2-1, Environmental Protection Measures Incorporated in to the project, are incorporated into the planning, design, construction, operation, and maintenance of the project to minimize the potential adverse effects of the project on the surrounding community and the environment. Best Management Practices (BMPs) include measures identified by the applicant on the proposed project plans. The City also applies standard Conditions of Approval (COAs) for all projects within the City. For the purposes of this Initial Study, these BMPs and COAs were considered part of the project and not mitigation measures. The impact determinations in Chapter 3.0, Environmental Checklist, and the City’s conclusion that the project would not have any significant adverse effects on the environment, assume the implementation of these measures.

Table 2-1 Environmental Protection Measures Incorporated in to the Project		Type
Aesthetics	The applicant has submitted a landscaping plan to provide screening to/from adjacent receptors.	BMP
Geology and Soils	Design and construction of the project shall adhere to the recommendations contained in the site specific geotechnical engineering investigation report prepared for this project (Krazan & Associates, June 17, 2014 and updated January 24, 2017).	BMP
Hydrology and Water Quality	<p>Contractor shall apply California Stormwater Quality Association (CASQA) Best Management Practices (BMPs) to prevent water and sediment from entering navigable waterways. The contractor is responsible for identifying and installing the applicable and appropriate BMPs identified in the CASQA handbook. The San Mateo Countywide Pollution Prevention Program Construction Best Management Practices page is included in the Project plans.</p> <p>If paving and storm drain improvements are not completed by October 1, temporary silt and erosion control facilities shall be installed to control and maintain silt deposits and to provide for the safe discharge of storm waters into existing storm drainage facilities.</p> <p>A Storm Water Pollution Control Plan (SWPPP) must be submitted and approved prior to the start of construction.</p> <p>No grading is permitted between Oct 1 and April 30.</p> <p>Wastewater generated during construction shall not be discharged into the storm drain system this includes waste from painting, saw cutting, concrete work, etc. If necessary, the contractor shall provide an area for on-site washing activities during construction. Materials that could contaminate storm runoff shall be stored in areas which are designated to prevent exposure to rainfall and to prevent storm water from entering the area.</p> <p>Flushing of streets/parking lots to remove dirt and construction debris is prohibited unless sediment controls</p>	BMP

Table 2-1 Environmental Protection Measures Incorporated in to the Project		Type
	are used. Preferably, areas requiring cleaning shall be swept.	
Noise	<p>Construction activities shall adhere to the City’s Standard Construction Noise Control Measures. These include:</p> <ol style="list-style-type: none"> 1) Equip all internal combustion driven engine equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. 2) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum killing time to five (5) minutes (as required by California Airborne Toxics Control Measure Title 13, Section 2485 of the California Code of Regulations (CCR)). Clear signage shall be provided for construction workers at all access points. 3) Locate stationary noise generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. 4) Utilize “quiet” air compressors and other stationary noise sources where technology exists. 5) Route all construction traffic to and from the project area via designated truck routes where possible. Prohibit construction related heavy truck traffic in residential areas where feasible. 6) Control noise from construction worker’s radios to a point they are not audible at existing neighbors bordering the project area to the extent feasible. 7) The contractor shall prepare and submit to the City for approval, a detailed construction plan identifying the schedule for major noise-generating construction activities. The applicant shall provide courtesy notice of these activities to all property owners and occupants within 300’ of the site with contractor contact information, to the satisfaction of the Building Official. 8) Designate a “Disturbance Coordinator” who will be responsible for responding to any local complaints about construction noise the Disturbance Coordinator will determine the cause of the noise complaint (e.g. starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and 	COA

Table 2-1 Environmental Protection Measures Incorporated in to the Project		Type
	include it in the notice sent to neighbors regarding the construction schedule.	
Traffic and Transportation	Public safety and traffic control shall be provided in accordance with manual of uniform traffic control devices (MUTCD) and as directed by the City.	COA

2.5 REQUIRED APPROVALS

Cal Water is the project proponent and The City of San Carlos is the Lead Agency for the proposed project. The proposed project may require the following permits and approvals:

- The City of San Carlos Design Review
- The City of San Carlos Encroachment Permits
- The City of San Carlos Dirt Haul Certificate and associated Grading Permit
- State Water Resources Control Board, Division of Drinking Water approval

Chapter 3. Environmental Checklist and Responses

1. **Project Title:** Cal Water Melendy Drive Station 115 Water Tank Project
2. **Lead Agency Name and Address:** City of San Carlos
600 Elm Street
San Carlos, CA 94070
3. **Contact Person and Phone Number:** Lisa Porras, Principal Planner
(650) 802-4264
4. **Project Location:** 2783 Melendy Drive, San Carlos, CA 94070; APN 050-180-020-000
5. **Project Sponsor's Name and Address:** California Water Service Company
James Douglas
341 North Delaware Street
San Mateo, CA 94401-1727
650-558-7822
6. **General Plan Designation:** Single Family (6DU / acre)
7. **Zoning:** RS-6
8. **Description of the Project:** Construction of a new 350,000-gallon water storage tank and related facilities at an existing water tank site.
9. **Surrounding Land Uses and Setting:** Residential, school, dog park
10. **Other public agencies whose approval is required:** State Water Resources Control Board, Division of Drinking Water
11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** The City of San Carlos has not received any request from a Native American tribe traditionally and culturally affiliated with the project area. Thus, no consultation has been conducted.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

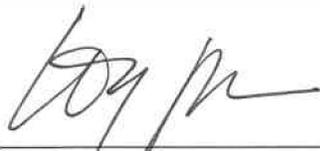
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

<input checked="" type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Agricultural and Forestry Resources	<input type="checkbox"/>	Hazards and Hazardous Materials	<input type="checkbox"/>	Recreation
<input checked="" type="checkbox"/>	Air Quality	<input type="checkbox"/>	Hydrology/Water Quality	<input checked="" type="checkbox"/>	Transportation
<input checked="" type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Land Use/Planning	<input checked="" type="checkbox"/>	Tribal Cultural Resources
<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Utilities/Service Systems
<input type="checkbox"/>	Energy	<input checked="" type="checkbox"/>	Noise	<input type="checkbox"/>	Wildfire
<input type="checkbox"/>	Geology/Soils	<input type="checkbox"/>	Population/Housing	<input checked="" type="checkbox"/>	Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



 Signature

March 12, 2019

 Date

Lisa Porras

 Printed Name

Principal Planner

 Title

City of San Carlos

 Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in 5. below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less Than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. the significance criteria or threshold, if any, used to evaluate each question; and
 - b. the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:*</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
*Except as provided in Public Resources Code Section 21099				

3.1.1 Environmental Setting

Visual Character of the Project Site and Surrounding Area

The Station 115 Melendy Drive Water Tank site is located in the western hills of the City of San Carlos which rise up from the lower portion of the City and consist of steep hills, valleys, and ridgelines developed with single- and multi-family residential homes. There are some higher density townhome/condo and apartment buildings in the western hills, including several apartment buildings on Melendy Drive directly across the street from the project site. The area is known for steep, winding roads, larger parcels, and larger single-family homes. Because of the elevation and hillside setting, many homes in the San Carlos hills have scenic views looking out towards the Bay or views of local hillsides, canyons, and the Coast Range Mountains to the west. Depending on the orientation and topography, residents above the project site on Melendy Drive and those on facing hillsides view the project site as part of the expansive view of the lower foothills and the Bay.

The 1.14-acre project site is part of a low hillside running along the southern side of Melendy Drive with the highest point at the center of the site (approximately 540 feet in elevation). The site consists of a flat, paved, developed area and a larger sloping undeveloped, vegetated area. The undeveloped, vegetated area occupies approximately 43,740 square feet (1.0 acre), or approximately 88 percent of the site. The developed area occupies approximately 6,110 square feet (0.14 acres), or approximately 12 percent of the site.

Development at the site is concentrated on a flat pad on the eastern portion of the parcel at approximately 515 feet elevation. These facilities include an existing 250,000-gallon steel water tank (30 feet high, 36 feet wide), a single 30-horsepower booster pump, surge tank and

associated piping and electrical system infrastructure (i.e., above and below ground electric lines, electrical pole-mounted panel board, and poles), supervisory control and data acquisition (SCADA) system infrastructure (e.g., communication lines), and other minor infrastructure such as protective bollards. The flat portions of the site and the access driveway are asphalt paved. The developed portion of the site is bound by a chain-link security fence, and access to the site is controlled by a gate at the top of a driveway at Melendy Drive. There is no security lighting currently at the site.

In addition to the water facilities noted, Cal Water leases a portion of the site for telecommunications equipment which include a cell tower (44'2" tall), a small (12 foot by 16 foot) equipment building, and emergency generator located along the eastern perimeter fence line. There is an additional cell tower (12 feet tall) to the east of the existing 250,000 tank adjacent to the fence line. Figure 3 in Chapter 2 Project Description shows the existing site.

Beyond the flat pad to the north, east, and south, the land slopes downward sharply to the adjacent Melendy Drive, Heather School, and dog park. From the developed, eastern portion of the site (approximately elevation of 515 feet), the topography slopes uphill to the west (ground level reaching approximately 540 feet in elevation). The western portion of the site is covered in mature tree vegetation, generally matching or exceeding the height of the two-story townhomes that are at the southeastern corner of Portofino Drive and Melendy Drive.

The existing trees on site are a mix of native oaks and non-native Monterey pines and Deodar cedars. Ornamental shrubs and non-native grasses and forbs are also present at the site. Melendy Drive adjacent to the site slopes downward from west to east along the parcel's northern boundary (approximately 545 feet in elevation at Portofino Drive to approximately 430 feet elevation at Torino Drive). Refer to Figures 3 and 4 in Chapter 2 Project Description for on and off-site photos of the proposed project site.

Views of the Project Site

The project site is visible from adjacent areas including Melendy Drive, Heather Dog Park, Heather School, and residential areas west of the project site. The existing water tank is visible from these same locations. However, some views from Melendy Drive are blocked due to the slope on the northwest side of the parcel. See Figure 4 in Chapter 2 Project Description nearby off-site photos of the proposed project site.

The project site and existing water tank are also visible from some more distant streets and residences in the project area. For example, the site and existing water tank are visible from a few locations along Portofino Drive approximately 0.1 mile southwest of the site, as shown in Photo Point 8 (Figure 13), but the existing tank not visible from much of Portofino Drive (public roadway), due to existing homes blocking the views to the site. The site and existing water tank are also visible from portions of Appian Way and Loma Road, located approximately 0.4 mile southeast and 0.8 mile southeast of the site, respectively (see Photo Points 9 and 10 in Figure 13). The site and existing water tank are also likely visible from parts of Eaton Park, a 57-6-acre City-owned open space with hiking trails and benches, located in between Photo Points 9 and 10.

Figure 13 Distant Views from Off-site



Top – Photo Point 8. View of site from near 416 Portofino Drive. Bottom – Photo Point 9. View of site from corner of Appian Way and Tamanto Drive. Arrow indicates existing tank on site.

Figure 13 Distant Views from Off-site



Top – Photo Point 10. View of the site from near 214 Loma Road. Arrow indicates existing tank on site. Bottom – Photo Point 11. View east from Melendy Drive.

Figure 13 Distant Views from Off-site



Top – Photo Point 12 – View downhill (east) from Melendy Drive from near the site driveway. Bottom - Photo Point 13. View of the site from the intersection of Melendy Drive and Portofino Drive.

3.1.2 Regulatory Setting

The proposed project is subject to relevant provisions of the City's General Plan and Zoning Ordinance as described below.

City of San Carlos General Plan

The following text from the City of San Carlos General Plan, Land Use Element, under "Views" (page 60) pertains to views within the City:

"San Carlos has varied topography which ranges from land at sea level to the hilly western portion of the city with elevations up to 900 feet. The hillsides and ridgelines that comprise the city's diverse landscape provide a rich array of scenic resources and afford numerous vantage points from which scenic vistas can be enjoyed.

Views of the surrounding open space and San Francisco Bay can be accessed in many areas west of Alameda de las Pulgas, including City parks and open space and existing residential neighborhoods."

In the project area, views of open space and the San Francisco Bay exist from roadways, parks, and private residences.

The Land Use and Environmental Management Elements in the City's General Plan contain goals and policies to protect visual resources relevant to the proposed project. Relevant goals and policies include:

- Goal LU-8: Ensure excellence in all development design.
- Policy LU-8.1: Require all development to feature high quality design that enhances the visual character of San Carlos.
- Policy LU-8.2: Ensure that new development is sensitive to the character of adjacent structures and the immediate neighborhood.
- Policy LU-8.3: Encourage design features and amenities in new development and redevelopment, including, but not limited to:
 - Interconnected street layout.
 - Clustering of buildings.
 - Landscaping on each lot.
 - Visual buffers.
 - Facilitation of pedestrian activity.
 - Distinctiveness and variety in architectural design.
- Policy LU-8.15: Require the undergrounding of all utilities, or a deferred improvement agreement, in conjunction with new construction and encourage the undergrounding of existing utilities where feasible.
- Policy LU-8.17: Require telecommunications and utility facilities to be sensitively placed, shielded, screened or lessened from view to the greatest extent possible through design review.
- Goal LU-9: Protect and enhance all residential neighborhoods.

- Policy LU-9.9: Encourage the design of development to minimize the obstruction of significant views of the San Francisco Bay, the western hills, or other significant natural vistas to the greatest extent possible.
- Policy LU-9.12: Ensure that development in residential areas is compatible with neighborhood character.
- Goal LU-10: Minimize the impacts of development in hillside areas.
- Policy LU-10.2: Require development in hillside areas to be designed into the natural features of the hillside including topography, trees, vegetation, landforms and drainage channels.
- Policy LU-10.4: Design and locate roads, utilities and other infrastructure to reasonably minimize impacts on the hillside environment. Design should respect the natural topography, produce the least visual impact and require the least grading while remaining consistent with public health and safety standards.
- Policy LU-10.5: Minimize grading and removal of earth material in hillside areas to the greatest extent possible.
- Policy EM-1.4: Protect and preserve the circadian cycle (the cycle of night and day) by limiting sources of light during nighttime hours.
- Goal CSH-8: To develop a system of scenic highways and roads that reflects the aesthetic and visual qualities of the existing and developing San Carlos landscape and the surrounding region.
- Policy CSH-8.1: The City shall continue its program of protecting and enhancing local scenic roads through right-of-way protection and appropriate architectural and landscape controls and requirements.
- Policy CSH-8.4: The City shall continue architectural and site plan review of all signage, structures and site developments proposed in the scenic corridors to ensure appropriateness of design and materials and proper placement of structures and vegetative screening where necessary.

Zoning Ordinance:

The San Carlos zoning designation for the project site is RS-6 Single-Family. The minimum lot size in this district is 5,000 square feet and the minimum lot width is 40 feet. Setback requirements are 15 feet in the front and the rear, 5 feet on the interior side, and 7.5 feet on the street side.

The maximum building height is 45 feet for public and quasi-public uses. However, the site is also within the Hillside Overlay District, which limits development to 35 feet in height, but provides exceptions to allow heights up to 38 feet in certain instances.

The proposed project conforms to the minimum lot size and building setback requirements of the City's Zoning Ordinance and meets the height requirement as allowed by exceptions as stated in the ordinance.

The height of the proposed water tank is 37.7 feet, or 2.7 feet over the 35-foot height limit in the Hillside Overlay District. Exceptions to the height limit are provided for in Chapter 18.15.060 which allows a maximum height of 38 feet, provided the project meets specified lot coverage requirements. To qualify for the exception, the water tank must not exceed 25% of the lot area, or 10% of the roof area of all on site structures; whichever is less. Additionally, the development

must be located at least 25 feet from any lot line. As stated in the project description, the proposed tank meets these requirements and therefore qualifies for a maximum vertical height of 38 feet (10 feet above the standard height limit of 28 feet).

Municipal Code

City of San Carlos Municipal Code Chapter 18.29 specifies the City's design review process. Chapter 18.29.060 specifies that to obtain design review approval, projects must satisfy these criteria to the extent they apply:

- A. The overall design of the project including its scale, massing, site plan, exterior design, and landscaping will enhance the appearance and features of the project site and surrounding natural and built environment.
- B. The project design is appropriate to the function of the project and will provide an attractive and comfortable environment for occupants, visitors, and the general community.
- C. Project details, materials, signage and landscaping are internally consistent, fully integrated with one another, and used in a manner that is visually consistent with the proposed architectural design.
- D. The project has been designed to be compatible with neighboring development by avoiding big differences in building scale and character between developments on adjoining lots in the same zoning district and providing a harmonious transition in scale and character between different districts.
- E. The project contributes to the creation of an attractive and visually interesting built environment that includes a variety of building styles and designs with well-articulated structures that present varied building facades, roof lines, and building heights within a unifying context that encourages increased pedestrian activity and promotes compatibility among neighboring land uses within the same or different districts.
- F. The design of streetscapes, including street trees, lighting, and pedestrian furniture, is consistent with the character of activity centers, commercial districts and nearby residential neighborhoods.
- G. The proposed design is compatible with the historical or visual character of any area recognized by the City as having such unified character.
- H. The project design preserves major public views and vistas from major public streets and open spaces and enhances them by providing areas to stroll, benches to rest and enjoy views, and similar amenities.
- I. Parking areas are designed and developed to buffer surrounding land uses; complement pedestrian-oriented development; enhance the environmental quality of the site, including minimizing stormwater run-off and the heat-island effect; and achieve a safe, efficient, and harmonious development.
- J. Lighting and lighting fixtures are designed to complement buildings, be of appropriate scale, provide adequate light over walkways and parking areas to create a sense of pedestrian safety, and avoid creating glare.
- K. The proposed building design and landscaping supports public safety and security by allowing for surveillance of the street by people inside buildings and elsewhere on the site.

L. Landscaping is designed to be compatible with and enhance the architectural character and features of the buildings on site and help relate the building to the surrounding landscape. Proposed planting materials avoid conflicts with views, lighting, infrastructure, utilities, and signage.

Scenic Vistas

CEQA does not establish the definition of a scenic vista. Communities can define and identify scenic vistas in a general plan or afford protection to scenic vistas through other land use planning documents. The San Carlos General Plan does not discuss or identify any officially designated scenic vistas within the City. For the purposes of this CEQA document, the City has defined a scenic vista as a highly-valued landscape that the public can view from public vantage points; a viewpoint that is accessible only from private property is not considered a scenic vista.

The San Carlos General Plan refers to “significant views of the San Francisco Bay, the western hills, or other significant natural vistas,” without specifically defining a “significant view.” This document defines a “significant view of San Francisco Bay, the western foothills or other significant natural vistas” as a view of these features from a public viewpoint.

However, many residents living in the vicinity of the project site enjoy private scenic vistas of surrounding hillsides, canyons, city lights, and the San Francisco Bay (which the project site may be a part of), depending on the orientation and elevation of their residences.

The San Carlos hills are also part of a developed hillside setting that is visible from lower elevations of San Carlos and adjacent cities (Redwood City, Belmont) along the El Camino and Highway 101 corridors. Although the area is developed, the San Carlos hills still comprise a visually pleasing backdrop to broad community views because of the varying topography and mature vegetation and development that is visible from a distance.

3.1.3 Discussion

Visual simulations of the proposed new water tank and landscaping are presented here as Figure 14. The visual simulations depict views from three different vantage points near the project site and were selected by the City because they are public views from locations near the project site, which depict the greatest degree of visual change that would be experienced at these public viewpoints. Views from further away, such as those views contained in Photo Points Figure 13: Distant Views, above, were not selected because the visual change presented by the new tank was less affected considering the distance from the view point and other existing built features within the view.

The selected views were simulated to include the proposed water tank and depict its height, width, and placement within the view among the other existing features within the environment. The simulations also depict the proposed landscaping plan (Figure 12) including year 1 and year 12 growth to show how the landscaping would change over time. The landscaping plan includes trees and shrubs for screening the proposed tank and general ground cover at the site.

The proposed tree plantings include four toyon, 11 deodar cedars, and 10 coast live oak (all 15-gallon size) concentrated on either side of the driveway at the fence line and the southeastern side facing Heather Park. A variety of other lower growing shrubs are also included in the landscaping plan.

This page intentionally left blank.

Figure 14 Visual Simulations

View 1: Heather Park



Existing Conditions



Year 1



Year 12

This page intentionally left blank.

Figure 14 Visual Simulations, View 2

View 2: Melendy Drive, Directly Across from Proposed Tank



View 2: Existing



View 2: Year 1



View 2: Year 12

This page intentionally left blank.

Figure 14: Visual Simulations, View 3

View 3: Melendy Drive, near the intersection of Melendy Drive and Portofino Drive



View 3: Existing



View 3: Year 1



View 3: Year 12

This page intentionally left blank.

The City commissioned a peer review of the simulations, by Oasis Associates, Inc. (December 6, 2018) (see Appendix A). The simulations were subsequently revised by the applicant to respond to the review's findings and a final peer review (December 21, 2018) concluded the final simulations accurately depict the size and location of the proposed tank among the existing site features and accurately depict the simulated growth and vigor of the trees and plants as specified in the landscape plan. The peer review did note that some existing trees did not exhibit much, if any, growth from existing to the 12-year simulated view. However, this was not considered a significant oversight because the noted trees were not part of the proposed landscaping plan to screen views of the proposed tank.

A general discussion of the views and simulations is provided below. A view from Heather Park (View 1) and two views from Melendy Drive (Views 2 and 3) were selected for analysis because they are public viewpoints that would experience notable visual changes from existing conditions.

View 1: Heather Park

The existing view shows the existing tank is clearly visible with the existing 44-foot cell tower partially hidden behind existing trees near the top of the hill and along the fence line.

The Year 1 simulation shows the new tank to the right of the existing tank with the top of the tank in line with the top of the existing tank and trees along the fence line. These existing trees cover the right half of the tank. The Year 12 simulation shows the new tank is mostly hidden from view by the vegetation proposed in the landscaping plan and the growth experienced by the existing trees on site. The Year 12 simulations also show the proposed landscaping partially blocking views to the existing tank.

View 2: Melendy Drive (Directly across Melendy Drive from proposed tank)

The existing view shows that various existing built (man-made) elements including the equipment building, 44-foot cell tower, power poles, power lines, chain-link fence, and driveway are within the existing view. The view shows the toe of the slope on the opposite side of the driveway which blocks some views to the existing tank from Melendy Drive (the existing tank is located to the right of the view shown in View 2).

The Year 1 simulation shows the proposed tank clearly within view and blocking a portion of the equipment building and all of the 44-foot cell tower. The top of the proposed tank is taller than the existing tallest trees to the left of it and shorter than the power pole to the right. The Year 12 simulation shows vegetation blocking the sides and lower portions of the tank, while an existing pine tree shows growth and blocks the middle/center of the tank. It should be noted that the toe of the slope shown on the right of the foot of the proposed tank is part of a hillside on the parcel that reaches an elevation of approximately 540 feet (compared to approximately 515 feet at the building pad; refer to Photo Points 3, 5, and 6 in the project description) and is covered in mature vegetation which reaches the height of the adjacent townhomes at the corner of Portofino Drive and Melendy Drive (right side of the view in Photo Point 6).

View 3: Melendy Drive (near Portofino Drive)

The existing view shows two cell towers within view (the existing on site 44-foot cell tower and another cell tower east of the project site near the property boundary with the school) two power poles and lines, equipment building, site fencing, driveway and portion of the flat pad. In the foreground is the street and paved slope on the north side of Melendy Drive. The view contains distant landscape views to the east including the eastern foothills and bay.

The Year 1 simulation shows the proposed tank clearly within the view. Only the top portion of the 44-foot cell tower remains visible from behind the tank. Built visual elements remain within view including the paved slope to the north of Melendy Drive, the roadway, driveway, and

powerlines along Melendy Drive. The equipment building and cell phone tower on the school property are blocked from view. A portion of the view to the Bay and East Bay hills is blocked by the proposed tank. The Year 12 simulation shows growth blocking the low-middle and right side of the tank.

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. For the purposes of this CEQA document, the City has defined a scenic vista as a highly-valued landscape that the public can view; a viewpoint that is accessible only from private property is not considered a scenic vista. These views are visible from City parks and open spaces as well as public viewpoints within existing residential neighborhoods such as from public roads in the hillside areas.

Melendy Drive in the project area has a steep incline as it moves west. The street elevations range from 440 to 470 feet in the vicinity of Heather School, approximately 500 feet at the closest location to the proposed tank (Photo Point 13), and approximately 545 feet at the corner of Portofino Drive and Melendy Drive (Photo Point 14). Due to the topography and existing development (two to three story apartment buildings and hillsides) along Melendy Drive near the project site, long range views of San Francisco Bay and the hills to the east are generally restricted to a narrowed, constrained view looking east / northeast along Melendy Drive. The public views to San Francisco Bay and the East Bay hills vary along the length of Melendy Drive in the vicinity of the project site. See Photo Points 11, 12, and 13. The slope of Melendy Drive flattens as the viewer passes closer to Heather School and the school itself and mature trees behind the school block some lower elevation views to the east, see Photo Point 12. Views of San Francisco Bay and the East Bay hills are not affected by the proposed tank from Melendy Drive at points east of the proposed tank, which would be behind the viewer at these locations.

Topography (slopes and hillsides) and existing residential buildings (single-story homes and 2-3 story multifamily residential buildings) generally narrow the field of view on either side of the road as the viewer moves south and west (uphill) along Melendy Road from the project site to the corner of Melendy Road and Portofino Drive (Photo Point 13). Melendy Drive continues uphill, west of Portofino Drive, then turns south around a bend. Views from Melendy Drive west of Portofino drive include the single-family home at the north eastern corner of the intersection and townhomes on the southeastern corner of the intersection. Power lines and cell towers are within the view along Melendy Drive and crossing Melendy Drive.

As shown in View 3 of Figure 14, the new tank would block a portion of this view to San Francisco Bay and the East Bay hills (refer to View 3 of the simulations in Figure 14). The views of San Francisco Bay and the East Bay hills that would be blocked by the proposed tank as viewed from public viewpoints on Melendy Drive west of the tank are not considered a significant adverse effect on a scenic vista because the view is already narrowed from existing 1-3 story residential development and natural topography on either side of Melendy Drive. In addition, long distance views to the San Francisco Bay and East Bay hills from Melendy Drive are blocked by the proposed tank for a relatively short stretch of road, (the portion of Melendy Drive just west of the proposed tank to just west of the intersection of Melendy Drive and Portofino Drive).

Some of the views from adjacent and surrounding streets, parks, and residences which include the project site also include views of open space or the San Francisco Bay. The new water tank would be visible to these viewpoints; however, the view is already impacted by an existing water tank on the site that is visible within these views. Proposed landscaping, over time, will shield both tanks from off-site views, as shown in Figure 12.

The overall viewshed from publicly accessible areas surrounding areas would not substantially change as there is already a water tank that is visible in the area and there is landscaping proposed as part of the project to maximize screening of the existing and proposed tanks. These less than significant findings are predicated on successful growth and screening provided by the proposed landscaping plan. Mitigation Measure AES-1 will ensure the landscaping plan is effective in providing the intended screening.

Impact AES-1: Failure of the proposed landscaping to accomplish the intended screening could leave the tank more visible than assumed by this analysis, resulting in potentially significant degradation of scenic views in the area. The proposed landscaping requires regular evaluation to ensure the intended visual screening is achieved.

Mitigation AES-1: The landscaping planted as part of the landscaping plan shall be evaluated annually by a qualified landscape consultant for health and vigor, for a minimum of five years post-planting. After five years, follow up evaluations shall occur bi-annually (minimum) until 10 years post planting or as directed by the City Planning department. The evaluations shall include an assessment of overall health of the landscaping and recommend additional plantings, modified irrigation, soil amendments, or other recommendations, as necessary, to ensure the landscaping meets the intended screening effect. Any failed landscaping shall be replaced in kind for the life of the project.

Effectiveness: Implementation of the mitigation measure would ensure the proposed landscaping provides the intended screening over time as the vegetation grows.

Implementation: Annual evaluation of health and vigor of the landscaping by a qualified landscape consultant shall occur annually for a minimum of five years post-planting. After the first five years of annual evaluations, follow up evaluations shall occur bi-annually (minimum) or as directed by the City Planning Department until 10 years post-planting and the vegetation is shown to reach the simulated 12-year growth. The measure shall be implemented by the Applicant/owner. Any failed landscaping shall be replaced in kind for the life of the project.

Monitoring Responsibility: The City shall verify the evaluations are completed as required and conduct follow up to ensure any further recommendations are applied and implemented.

With the implementation of Mitigation Measure AES-1, the impact to the visual character and quality of the site is considered less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The nearest officially-designated state scenic highway, I-280, is located approximately 1.3 miles west of the site (Caltrans, 2011). The project site is not within the viewshed of I-280 and thus would not damage scenic resources within a state scenic highway. There are two San Mateo County-designated scenic roads in San Carlos: Edgewood Road and Canada Road. However, both roads are over one mile distant from the project site, and the site is not visible from either of these roads. There are also seven City-designated scenic roads. Of these, the project site is only visible in the distance from a small portion of Brittan Avenue near Photo Point 9 (Figure 13) and is not visible from any of the other scenic roads. No trees, rock outcroppings, or historic buildings would be removed by the project. Therefore, the project would not damage scenic resources in a state, county, or City designated scenic road.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The project site is located in an urbanized area and already contains an existing water tank.

Therefore, the project shall be reviewed for consistency with policies related to zoning and visual quality. The Land Use and Environmental Management Elements in the City’s General Plan contain goals and policies to protect visual resources relevant to the proposed project.

Table 3-1. General Plan Policies and Consistency	
General Plan Policy	Project Consistency
<p><i>Goal LU-8:</i> Ensure excellence in all development design.</p> <p><i>Policy LU-8.1:</i> Require all development to feature high quality design that enhances the visual character of San Carlos.</p> <p><i>Policy LU-8.2:</i> Ensure that new development is sensitive to the character of adjacent structures and the immediate neighborhood.</p> <p><i>Policy LU-8.3:</i> Encourage design features and amenities in new development and redevelopment, including, but not limited to:</p> <ul style="list-style-type: none"> a. Interconnected street layout. b. Clustering of buildings. c. Landscaping on each lot. d. Visual buffers. e. Facilitation of pedestrian activity. f. Distinctiveness and variety in architectural design. <p><i>Policy LU-8.15:</i> Require the undergrounding of all utilities, or a deferred improvement agreement, in conjunction with new construction and encourage the undergrounding of existing utilities where feasible.</p> <p><i>Policy LU-8.17:</i> Require telecommunications and utility facilities to be sensitively placed, shielded, screened or lessened from view to the greatest extent possible through design review.</p>	<p>The proposed project is consistent with the zoning district building setback and height requirements and includes a robust Landscaping Plan designed to screen the new water tank to the maximum extent practical to minimize visual intrusion. Screening vegetation would include coast live oak trees and other landscaping designed to maximize vegetative screening of the water tank. The water tank and new electrical panel would be painted CWS Grouse Tan to match the existing water tank.</p> <p>New exterior security lighting would be designed to avoid direct glare into adjacent parcels.</p> <p>The water tank would be set-back from the street and surrounding residential properties and would not shade adjacent parcels.</p> <p>Piping associated with the water tank would be installed underground and would not be visible.</p> <p>The project would not affect the location of existing telecommunication infrastructure on the project site.</p>

Table 3-1. General Plan Policies and Consistency	
General Plan Policy	Project Consistency
<p><i>Goal LU-9:</i> Protect and enhance all residential neighborhoods.</p> <p><i>Policy LU-9.9:</i> Encourage the design of development to minimize the obstruction of significant views of the San Francisco Bay, the western hills, or other significant natural vistas to the greatest extent possible.</p> <p><i>Policy LU-9.12:</i> Ensure that development in residential areas is compatible with neighborhood character.</p>	<p>The proposed tank would be placed in the already developed area of the project site and maximizes the setback from Melendy Drive, given the other existing site features and topography. No new grading is proposed except to accommodate the foundation of the proposed tank. The height on the new tank would be consistent with zoning height regulations and allowable exceptions. The new tank would be adjacent to an existing water tank, 44-foot tall cell phone tower and associated equipment building. Other existing built linear elements cross the site including above ground power/utility poles and lines along Melendy Drive and chain link security fencing surrounding the upper portion of the site. The Landscape Plan has been designed to screen the most prominent views of the water tanks from Melendy Drive and Heather Park. The new water tank and new electrical panel would be painted CWS Grouse Tan to match the existing water tank. The project is consistent with the existing land use, meets the setback requirements provided by the zoning, provides maximum practicable screening of the new and existing tanks, and is therefore considered compatible with the surrounding neighborhood character which contains hillside residential development of varying heights (1-3 story single- and multi-family housing; including 2 stories above ground floor parking), other public facilities nearby including an existing water tank and school, and telecommunications facilities (cell towers) and overhead powerlines.</p> <p>The proposed water tank would partially obstruct views of San Francisco Bay from limited areas adjacent to the site but would not block views of the western hills, or other significant natural vistas.</p>
<p><i>Goal LU-10:</i> Minimize the impacts of development in hillside areas.</p> <p><i>Policy LU-10.2:</i> Require development in hillside areas to be designed into the natural features of the hillside including topography,</p>	<p>The proposed project would not alter the natural topography of the project site or surrounding area. The new water tank and associated features would be located on an existing flat concrete pad and no changes to site elevation or topography are proposed. Minimal grading would be required to install</p>

Table 3-1. General Plan Policies and Consistency	
General Plan Policy	Project Consistency
<p>trees, vegetation, landforms and drainage channels.</p> <p><i>Policy LU-10.4:</i> Design and locate roads, utilities and other infrastructure to reasonably minimize impacts on the hillside environment. Design should respect the natural topography, produce the least visual impact and require the least grading while remaining consistent with public health and safety standards.</p> <p><i>Policy LU-10.5:</i> Minimize grading and removal of earth material in hillside areas to the greatest extent possible.</p>	<p>the tank foundation and new water pipes associated with the tank, but no changes in surrounding slopes are proposed. The site contains a tree covered knoll adjacent to the tanks.</p> <p>The project is designed to minimize disturbance on the site and would be eventually be partially screened from view once landscaping matures.</p> <p>The project would satisfy an existing water storage deficit, improve water system reliability, and improve emergency supplies available in the event of planned or unplanned outages or maintenance.</p>
<p><i>Policy EM-1.4:</i> Protect and preserve the circadian cycle (the cycle of night and day) by limiting sources of light during nighttime hours.</p>	<p>Two new lights would be mounted on the south and west sides of the new tank and oriented toward the southwest slope bank adjacent to the proposed tank. The lights would be equipped with motion sensor detection system technology to prevent false tripping from the environment and would only be on when people were present on the site. The lights are able to pivot and include a visor to focus the light path and area of illumination. The proposed lights would be mounted no more than 24 feet above ground and directed away from residential areas.</p>
<p><i>Goal CSH-8:</i> To develop a system of scenic highways and roads that reflects the aesthetic and visual qualities of the existing and developing San Carlos landscape and the surrounding region.</p> <p><i>Policy CSH-8.1:</i> The City shall continue its program of protecting and enhancing local scenic roads through right-of-way protection and appropriate architectural and landscape controls and requirements.</p> <p><i>Policy CSH-8.4:</i> The City shall continue architectural and site plan review of all signage, structures and site developments proposed in the scenic corridors to ensure appropriateness of design and materials and proper placement of structures and vegetative screening where necessary.</p>	<p>There are seven City-designated scenic roads. Of these, the project site is only visible in the distance from a small portion of Brittan Avenue near Tamanto Drive / Photo Point 9 (Figure 13) (approximately 0.3 mile away) and is not visible from any of the other scenic roads.</p> <p>This view from the south is already affected by the existing water tank present on the site. While the proposed tank is taller than the existing tank, the new tank would be situated further back from the viewer as viewed from the south and therefore the height difference would not be as pronounced. As stated above, the proposed water tank and associated features would be painted to match the color of the existing water tank and would be visually screened from surrounding areas landscaping. No significant impacts to</p>

Table 3-1. General Plan Policies and Consistency	
General Plan Policy	Project Consistency
	the viewshed of Brittan Avenue or any other locally designated scenic road are anticipated.

The project is also subject to design review and approval by the Planning Commission and would ensure that the project’s visual effects are minimized. Therefore, the impact is considered less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Two new lights would be mounted on the south and west sides of the new tank and oriented toward the southwest slope bank adjacent to the proposed tank. The lights would be equipped with motion sensor detection system technology to prevent false tripping from the environment and would only be on when people were present on the site. The lights can pivot and include a visor to focus the light path and area of illumination. The proposed lights would be mounted no more than 24 feet above ground. The new lighting introduced into the project site would not create a new source of light or glare.

This page intentionally left blank.

3.2 AGRICULTURAL AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project*:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
*In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				

3.2.1 Environmental Setting

The project site is zoned and designated by the City as Single-Family Residential. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies the property as Urban and Built-up Land (CDC 2014). The project site is not under a Williamson Act Contract (CDC 2012).

3.2.2 Discussion

Would the project:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

- b) Conflict with existing zoning for agricultural use or a Williamson Act contract?**
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**
- d) Result in the loss of forest land or conversion of forest land to non-forest use?**
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

No Impact (Responses a – e). There are no forest lands or agricultural lands on or adjacent to the project site. The project would not convert or cause the conversion of any farmland or forest land to a non-agricultural/non-forest use. The proposed project would not impact Prime Farmland, Unique Farmland, Farmland of Statewide Importance, forest land or land under a Williamson Act contract. Thus, the project would not result in impacts to any agricultural or forestry resources.

3.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project*:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
*Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				

3.3.1 Environmental Setting

Air quality is a function of pollutant emissions, and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

Federal, state, and local governments control air quality through the implementation of laws, ordinances, regulations, and standards. The federal and state governments have established ambient air quality standards for “criteria” pollutants considered harmful to the environment and public health. National Ambient Air Quality Standards (NAAQS) have been established for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), fine particulate matter (particles 2.5 microns in diameter and smaller, or PM_{2.5}), inhalable coarse particulate matter (particles between 2.5 and 10 microns in diameter, or PM_{2.5} and PM₁₀), and sulfur dioxide (SO₂). California Ambient Air Quality Standards (CAAQS) are more stringent than the national standards for the pollutants listed above and include the following additional pollutants: hydrogen sulfide (H₂S), sulfates (SO_x), and vinyl chloride. In addition to these criteria pollutants, the federal and state governments have classified certain pollutants as hazardous air pollutants (HAPs) or toxic air contaminants (TACs), such as asbestos and diesel particulate matter (DPM).

The proposed project is located in the San Francisco Bay Area Air Basin (SFBAAB), an area of non-attainment for national and state ozone, state particulate matter (PM₁₀), and national and state fine particulate matter (PM_{2.5}) air quality standards (BAAQMD 2017a).

Existing Emissions Sources at Project Site

The project site contains an emergency generator which supports the telecommunications facilities on site. No other stationary sources of emissions are within 1,000 feet of the site

(BAAQMD 2017b)¹. The existing, 30-horsepower, electric booster pump runs for approximately nine hours per day. Cal Water staff visit the site daily to perform routine security and maintenance inspections.

Sensitive Receptors

A sensitive receptor is generally defined as a location where human populations, especially children, seniors, and sick persons, are located where there is reasonable expectation of continuous human exposure to air pollutants. These typically include residences, hospitals, and schools.

The project site is located in a residential neighborhood and is thus surrounded by sensitive residential receptors. Residential receptors are located north of the project site on Melendy Drive, and west of the project site on Portofino drive. Sensitive receptors are also located east of the project site at Heather School, and south of the site at Heather Park.

3.3.2 Regulatory Setting

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO_x emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. This regulation applies to all off-road diesel vehicles over 25 horsepower (hp) used in California and most two-engine vehicles (except on-road two-engine sweepers), which are subject to the *Regulation for In-Use Off-Road Diesel Fueled Fleets (Off-Road regulation)*. Additionally, vehicles that are rented or leased (rental or leased fleets) are included in this regulation.

The Off-Road regulation:

- Imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles;
- Requires all off-road diesel vehicles over 25-horsepower be reported to CARB (using the Diesel Off-Road Online Report System DOORs) and labeled;
- Restricts the adding of older vehicles into fleets; and,
- Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies, VDECS (i.e., exhaust retrofits).

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD or the District) is responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants (TAC) within the SFBAAB. The BAAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards. The BAAQMD currently has 13 regulations containing more than 100 rules that control and limit emissions from sources of air pollutants. Most of these rules do not apply to the proposed water tank project; however, Regulation 6, Rule 1 would be applicable as it limits the quantity of particulate matter in the atmosphere by controlling emission rates, concentration, visible emissions, and opacity.

On April 29, 2017, the BAAQMD adopted its *Spare the Air-Cool the Climate 2017 Clean Air Plan* (Clean Air Plan). The 2017 Clean Air Plan updates the most recent Bay Area ozone plan, the

¹ The BAAQMD recommends Lead Agencies identify stationary sources within a 1,000-foot radius of a Project site.

2010 Clean Air Plan, in fulfillment of state ozone planning requirements. Over the next 35 years, the Plan will focus on the three following goals:

- Attain all state and national quality standards;
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Reduce Bay Area greenhouse gas emissions (GHG) to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

The Plan includes 85 distinct control measures to help the region reduce air pollutants and has a long-term strategic vision which forecasts what a clean air Bay Area will look like in the year 2050. The control measures aggressively target the largest source of GHG, ozone pollutants, and particulate matter emissions – transportation. The 2017 Plan includes more incentives for electric vehicle infrastructure, off-road electrification projects such as Caltrain and shore power at ports, and reducing emissions from trucks, school buses, marine vessels, locomotives, and off-road equipment (BAAQMD 2017c).

City of San Carlos General Plan

The following goals, policies and actions in the City of San Carlos General Plan Environmental Management Element may be applicable to the proposed project:

Goal EM-6: Support atmospheric conditions that are clean, healthful, provides maximum visibility and meets air quality standards.

Policy EM-6.1: Support and comply with the Bay Area Air Quality Management District, State and federal standards and policies that improve air quality in the Bay Area.

Policy EM-6.3: Support the reduction of emissions of particulates from wood burning appliances, construction activity, automobiles, trucks, and other sources.

Policy EM-6.4: Implement Bay Area Air Quality Management District (BAAQMD) guidelines that establish minimum screening or buffer distances between emissions sources and sensitive receptors. Exceptions may be made for projects that do not meet the distance requirements but can be determined compatible with adjacent uses through a project-specific study that determines potential health risk. Mitigation measures shall be required to reduce these risks to acceptable levels.

Policy EM-6.6: BAAQMD recommended measures to reduce PM10 and exhaust emissions associated with construction shall be applied to new development in San Carlos.

Action EM-6.1: Require review by appropriate agencies of development applications that may create potential air quality impacts to assure compliance with relevant regulations.

3.3.3 Discussion

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The proposed project would not conflict with or obstruct implementation of the BAAQMD 2017 Clean Air Plan (Plan). The Plan includes criteria air pollutant emissions from construction, mobile, and stationary source activities in its emissions inventories and plans for achieving attainment of air quality standards. Eighty-five control strategies are grouped into nine categories: Stationary Source Measures, Transportation Control Measures, Energy Control Measures, Buildings Control Measures, Agriculture Control Measures, Natural and Working Lands Control Measures, Waste Management Control Measures, Water Control Measures, and

Super GHG Control Measures. Most of these control strategies do not apply to the proposed project or are implemented at the local and regional level by municipal government and the BAAQMD.

The proposed project ultimately supports the Plan, in the fact that neither construction nor operation of the proposed project would result in emissions of criteria air pollutants that would hinder the BAAQMD in attaining all state and national air quality standards (see response b, below). Furthermore, the project would not exacerbate or contribute to disparities among Bay Area communities in cancer health risk from toxic air contaminants. Thus, the proposed project would not conflict with the 2017 Clean Air Plan.

b) 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?

Less Than Significant Impact. As discussed in a) and b) above, the proposed project would not generate construction or operational emissions that exceed BAAQMD thresholds of significance. In developing its CEQA significance thresholds, the BAAQMD considered the emission levels at which a project's individual emissions would be cumulatively considerable. The BAAQMD considers projects that result in emissions exceeding its CEQA significance thresholds to result in individual impacts that are also cumulatively considerable and significant. Since the proposed project would not individually exceed any BAAQMD CEQA significance thresholds, the proposed project would result in a less than significant cumulative air quality impact.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive residential receptors are located immediately adjacent to and in the general vicinity of the tank site. Project-related construction activities would emit PM_{2.5} from equipment exhaust. Nearly all the project's PM_{2.5} emissions from equipment exhaust would be diesel particulate matter (diesel PM), a TAC. Although project construction would emit criteria and hazardous air pollutants, these emissions would not result in substantial pollutant concentrations. As described above, the project is below all BAAQMD construction emission thresholds and would occur intermittently during the daytime weekday period for approximately twelve months. As required by the BAAQMD, the City has incorporated Mitigation Measure AIR-1 into the project which requires Cal Water to incorporate measures into the project that would reduce potential emissions of fugitive dust and limit diesel construction equipment idling to no more than five minutes. The proposed project would not result in long-term increases in operational emissions that have the potential to expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. Construction of the project would generate typical odors associated with construction activities, such fuel and oil odors and asphalt and concrete paving odors. The odors generated by the project would be intermittent and localized in nature and would disperse quickly. Once construction is complete, the project would not generate further odors. Therefore, the project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant.

3.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4.1 Environmental Setting

The site is an approximately 1.14-acre parcel of land that consists of a flat, paved, developed area and a larger sloping undeveloped area. The undeveloped area occupies approximately 43,740 square feet (1.0 acre), or approximately 88 percent of the site. The developed area occupies approximately 6,110 square feet (0.14 acres), or approximately 12 percent of the site. Development at the site is concentrated on a flat pad on the eastern portion of the parcel and includes an existing 250,000-gallon steel water tank and associated infrastructure, a cell tower (44'2" tall), a small (12 foot by 16 foot) equipment building and emergency generator, and perimeter fencing.

Vegetation

There are some trees surrounding the paved portion of the site, including coast live oak (*Quercus agrifolia*), Monterey pine (*Pinus radiata*), deodar cedar (*Cedrus deodara*), and Pacific

madrone (*Arbutus menziesii*) (see Figures 3 and 4). Several of the Monterey pines identified in the Arborist's Report for the site (Kielty Arborist Services, 2014) have already been removed and only the stumps remain. The understory beneath the trees consists primarily of coyote brush (*Baccharis pilularis*), cotoneaster (*Cotoneaster* sp.), ornamental shrubs, and non-native grasses and forbs such as ripgut brome (*Bromus diandrus*), wild oats (*Avena* sp.), fennel (*Foeniculum vulgare*), and Italian thistle (*Carduus pycnocephalus*).

Wildlife

The project site is in an area of urban development; therefore, wildlife species that are expected to occur in the project area are those that are adapted to urban environments. Birds observed during the site visit included turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), California scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), unknown swallow, oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltriparus minimus*), American robin (*Turdus migratorius*), Northern mockingbird (*Mimus polyglottos*), dark-eyed junco (*Junco hyemalis*), and spotted towhee (*Pipilo maculatus*). No reptiles or amphibians were observed during the June 2017 site visit, but species which may occur at the project site include western fence lizard (*Sceloporus occidentalis*) and northern alligator lizard (*Elgaria coerulea*). No mammal species were observed during the site visit, but species which may occur at the project site include house cat (*Felis catus*), eastern fox squirrel (*Sciurus niger*), non-native mice and rats, raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and mule deer (*Odocoileus hemionus*).

Special-Status Species

Special-status species are those plants and animals that are legally protected or otherwise recognized as vulnerable to habitat loss or population decline by federal, state, or local resource conservation agencies and organizations. In this analysis, special-status species include:

- Listed, proposed for listing, or candidate for possible future listing as threatened or endangered under the Federal Endangered Species Act (FESA, 50 CFR §17.12)
- Listed or candidate for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA, Fish and Game Code §2050 et seq.).
- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 et seq.).
- Listed as a Fully Protected Species (Fish and Game Code §§3511, 4700, 5050, and 5515)
- Listed as a California Species of Special Concern (CSSC) by the California Department of Fish and Wildlife (CDFW)
- Plant species considered by California Native Plant Society (CNPS) and CDFW to be "rare, threatened, or endangered in California" (Ranks 1A, 1B, and 2)

The potential for special-status species to occur within the project area was analyzed by conducting a query of the CNDDDB and the CNPS Rare Plant Inventory to see which species occur within five miles of the project site. Tables of those special-status plant and wildlife species, along with their protection status, geographic distribution, habitat and potential to occur on the project site, are included in Appendix B. There are no CNDDDB records of any special-status species occurring on or adjacent to the project site and there is no federally designated critical habitat on or adjacent to the project site (USFWS, 2017). In addition, due to the urban, developed nature of the project site and surrounding area, none of these special-status plant or wildlife species are likely to occur on the project site.

3.4.2 Regulatory Setting

Biological resources in the project area are protected under federal, state and local laws and policies. Violation of these laws and regulations would constitute a significant biological impact. The laws and policies that pertain to the biological resources potentially present on the project site or affected by the project are discussed below.

Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (FESA), as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under FESA. FESA has the following four major components: (1) provisions for listing species, (2) requirements for consultation with the United States (U.S.) Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service), (3) prohibitions against "taking" (i.e., harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species, and (4) provisions for permits that allow incidental "take". FESA also discusses recovery plans and the designation of critical habitat for listed species. Both the USFWS and NOAA Fisheries Service share the responsibility for administration of FESA.

The Migratory Bird Treaty Act of 1918 (MBTA)

Under the MBTA, it is unlawful to "pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg, or product, manufactured or not." In short, under the MBTA it is illegal to disturb a nest that is in active use, since this could result in direct or indirect killing a bird or destroying an egg. With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that cause nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA. The USFWS oversees implementation of the MBTA.

California Fish and Game Code

California Endangered Species Act. The California Endangered Species Act (CESA; Fish and Game Code 2050 et seq.) generally parallels the federal Endangered Species Act. It establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Section 2080 of the California Fish and Game Code prohibits the take, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or by the regulations. "Take" is defined in Section 86 of the California Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." This definition differs from the definition of "take" under FESA. CESA is administered by California Department of Fish and Wildlife (CDFW). CESA allows for take incidental to otherwise lawful projects but mandates that State lead agencies consult with the CDFW to ensure that a project would not jeopardize the continued existence of threatened or endangered species.

Non-Game Mammals. Sections 4150-4155 of the California Fish and Game Code protects non-game mammals, including bats. Section 4150 states "A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission". The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. All bats are classified as a non-game mammal and are protected under California Fish and Game Code.

Native Plant Protection Act. The Native Plant Protection Act (NPPA) was created in 1977 with the intent to preserve, protect, and enhance rare and endangered plants in California (California Fish and Game Code sections 1900 to 1913). The NPPA is administered by CDFW, which has the authority to designate native plants as endangered or rare and to protect them from “take.” CDFW maintains a list of plant species that have been officially classified as endangered, threatened or rare. These special-status plants have special protection under California law.

Fully Protected Species and Species of Special Concern. The classification of California fully protected (CFP) species was the CDFW’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (§5515 for fish, §5050 for amphibian and reptiles, §3511 for birds, §4700 for mammals) deal with CFP species and state that these species “...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species”. Take” of these species may be authorized for necessary scientific research. This language makes the CFP designation the strongest and most restrictive regarding the “take” of these species. In 2003, the code sections dealing with CFP species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

California species of special concern (CSSC) are broadly defined as animals not currently listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them.

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique in constituent components, of relatively limited distribution in the region, or of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies or regulations, or by the CDFW (i.e., CNDDDB) or the USFWS. The CNDDDB identifies several natural communities as rare, which are given the highest inventory priority (Sawyer et. al. 2009; CDFW 2010).

City of San Carlos General Plan

The Environmental Management Element in the City’s General Plan contains the following goals and policies to protect biological resources relevant to the proposed project:

Goal EM-1: Protect natural habitat and other biological resources.

Policy EM-1.1: Ensure that potential impacts to biological resources and sensitive habitat are carefully evaluated when considering development project applications.

Policy EM-1.2: Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.

Policy EM-1.5: Promote the preservation of native species, habitat and vegetation types and overall natural diversity.

Goal EM-3: Enhance the urban forest.

Policy EM-3.1: Maintain and expand the urban canopy with special emphasis on protection of heritage trees.

City of San Carlos Tree Ordinance

Section 18.41.020 Definitions of the San Carlos Municipal Code defines a “Protected tree” to be any significant or heritage tree, described below. Section 18.18.070 (B) Protected Trees of the San Carlos Municipal Code states no protected trees can be removed, pruned, or otherwise materially altered without a permit. Trimming of a protected tree is allowed without such a permit. Section 18.18.070 (B) also contains requirements to avoid construction-related impacts to retained protected trees, such as special measures for any construction activity within the dripline of a protected tree.

Heritage Tree. “Heritage tree” means any:

- i. Indigenous tree whose size, as measured at forty-eight inches above natural grade (unless otherwise indicated), is defined below:
 - *Aesculus californica* (buckeye) with a single stem or multiple stems touching each other at forty-eight inches above natural grade and measuring thirty inches in circumference.
 - *Arbutus meniesii* (madrone) with a single stem or multiple stems touching each other at forty-eight inches above natural grade and measuring thirty inches in circumference.
 - *Quercus agrifolia* (coast live oak) of more than thirty inches in circumference.
 - *Quercus lobata* (valley oak) of more than thirty inches in circumference.
 - *Quercus douglassii* (blue oak) of more than twenty-four inches in circumference.
 - *Quercus wislizenii* (interior live oak) of more than twenty-four inches in circumference.
 - *Sequoia sempervirens* (redwood) of more than seventy-two inches in circumference.
 - *Umbrellularia californica* (California bay laurel) with a single stem or multiple stems touching each other at forty-eight inches above natural grade and measuring thirty inches in circumference.
- ii. Community of trees (a group of trees of any size which are ecologically related to each other);
- iii. Founders tree (any tree known to have been planted prior to the City’s 1925 incorporation);
- iv. Tree so designated by the City Council, based upon findings that the particular tree is unique and of importance to the public due to its unusual age, appearance, location or other factors.

Significant Tree. “Significant tree” means any tree that is thirty-six inches in circumference (or more) (which is approximately eleven and one-half inches in diameter), outside of bark, measured at forty-eight inches above natural grade. The following trees shall not be classified as significant or heritage trees regardless of size:

- i. Bailey, Green or Black Acacia: *A. baileyana*, *A. dedurrens* or *A. melanoxyton*;
- ii. Tree of Heaven: *Ailanthus altissima*;
- iii. Fruit trees of any kind;
- iv. Monterey Pine: *Pinus radiata*;
- v. Eucalyptus: *Eucalyptus globulus* (unless a founder tree or group of trees).

3.4.3 Discussion

Would the project:

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Less Than Significant with Mitigation. No special-status wildlife or plant species are anticipated to occur in the project area. Therefore, no impacts to these species would occur.

Nesting birds, including raptors, protected under the MBTA and California Fish and Game Code could be present in the trees and shrubs on the project site adjacent to the construction area. Although none are proposed as part of the project, tree removal activities during the avian breeding season (generally February 1st to August 31st) could cause injury to individuals or nest abandonment. In addition, noise and increased construction activity could temporarily disturb nesting or foraging activities, potentially resulting in the abandonment of nest sites. The implementation of Mitigation Measure BIO-1A and BIO-1b would render potential impacts to nesting birds a less than significant impact.

Impact BIO-1: The proposed project could impact nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code.

Mitigation Measure BIO-1A: To avoid impacts to nesting birds and violation of state and federal laws pertaining to birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) shall occur outside the avian nesting season (that is, prior to February 1 or after August 31) if possible. If construction and construction noise occurs within the avian nesting season (from February 1 to August 31), all suitable habitats located within the project's area of disturbance including staging and storage areas plus a 250-foot (passerines) and 1,000-foot (raptor nests) buffer around these areas shall be thoroughly surveyed, as feasible, for the presence of active nests by a qualified biologist no more than five days before commencement of any site disturbance activities and equipment mobilization. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, adults are observed carrying food to the nest, or fledglings are using or being fed in the nest or its immediate vicinity. The results of the surveys shall be documented and submitted to the City of San Carlos prior to initiation of project construction.

If it is determined that birds are actively nesting within the survey area, Mitigation Measure BIO-1B shall apply. Conversely, if the survey area is found to be absent of nesting birds, Mitigation Measure BIO-1B shall not be required.

Mitigation Measure BIO-1B: If pre-construction nesting bird surveys result in the location of active nests, no site disturbance and mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place within 250 feet of non-raptor nests and 1,000 feet of raptor nests, or as determined by a qualified biologist in consultation with the California Department of Fish and Wildlife, until the chicks have fledged. Monitoring shall be required to insure compliance with the MBTA and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented and provided to the City of San Carlos.

Effectiveness: This measure would minimize and/or avoid impacts on nesting bird species.

Implementation: By Cal Water or its contractor.

Timing: February 1st through August 31st, no more than five days in advance of the start of project construction.

Monitoring: The biologist shall prepare a written record of survey results, including the implementation of any avoidance and minimization measures, for the City's review. The biologist shall monitor any active nests to determine when young have matured sufficiently to have left the nest.

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 US Fish and Wildlife Service?

No Impact. Sensitive vegetation communities include riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or designated by the USFWS and CDFW. No sensitive natural communities are present on or adjacent to the project site. Therefore, there would be no impact to sensitive natural communities.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. No federally protected wetlands or waters of the U.S., as defined by Section 404 of the Clean Water Act are present on or adjacent to the project site, according to the National Wetlands Inventory (2017) and confirmed during the site visit. All surface water drainage from the project site enters a municipal storm drain system and does not affect water quality or hydrologic function of creeks or drainages in the project vicinity.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The San Carlos hills are adjacent to significant open space areas (Edgewood Park & Natural Reserve, Pulgas Ridge Open Space Preserve, Eaton Park, Big Canyon Park, open space areas in Belmont, in the Emerald Lake Hills of Redwood City, the Phleger Estate, the Crystal Springs Watershed, etc.). Herds of deer and other mammalian wildlife travel through portions of the San Carlos hills, including around Crestview Drive and Melendy Drive. Occasionally, deer and wildlife likely travel around the fenced portions of the project site as they move through the area. The proposed project would not disrupt these travel patterns because all project activities would be contained within the existing fencing. There are no established native wildlife nursery sites in the project area. There are no waterways on or near the project site that could be used as a movement corridor or nursery site for aquatic species.

The proposed project would not change the land use at the project site (water storage) or impose new barriers to wildlife movement beyond those that already exist in the project area. Thus, the proposed project would not interfere substantially with any movement of any native resident or migratory fish or wildlife species 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 (including the County Heritage and Significant Tree Ordinances)?

Less Than Significant Impact. The project does not propose to remove any trees and would therefore not conflict with a tree preservation policy or ordinance. The project site does not

contain any sensitive species or their habitats and would not remove any vegetation as part of the proposed project. The project would not conflict with any local policies or ordinances, including the City's general plan policies related to the protection of biological resources.

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

No Impact. There are no existing or planned HCP/NCCPs that include the project site.

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.5.1 Environmental Setting

Prehistoric

The Ohlone Native Americans inhabited the project area prior to invasion by the Spanish in 1769 and were named Costanoans by the Spanish. The Ohlones were hunters and gatherers, living in “tribelet” – small independent groups of usually related families occupying a specific territory and speaking the same language or dialect (Levy 1987; NWIC).

Historic

The first Europeans to reach the San Francisco area were Spanish explorers in 1769 as part of the Portolá expedition. In 1774, the de Anza expedition had set out to convert the Native American tribes to Christianity, resulting in the establishment of (among others) Mission San Francisco de Asis (Mission Dolores) (founded in 1776) and Mission Santa Clara de Asis (founded in 1777). The El Camino Real (which runs through San Carlos) became a heavily traveled route between Mission Dolores and Mission Santa Clara in addition to other missions along the route. This route led to the establishment of inns and roadhouses to serve travelers along the way. In this historic period, the Ohlone people were subjugated and absorbed into the mission system that resulted in the loss of their freedom of movement, their culture, and customs (Cabrillo College 2017).

During the Mexican rule of California (1822 through 1848), large tracts of land were issued to private individuals, usually cattle ranchers and hide and tallow traders. What is now San Carlos was part of a land grant issued in 1835, the “Rancho de las Pulgas” (Ranch of the Fleas), which was the largest land grant in the peninsula at 35,420 acres. What was to eventually become San Carlos was bought out of the land grant by an American, Timothy Phelps, as a dairy farm in the 1850s. In 1885 he made plans to develop a town, *Phelpsville*, but was unsuccessful. He then sold the land in 1887 in order to make way for further development. Three additional attempts were made to develop a town. In 1888 the San Carlos land company tried to subdivide and sell the land once owned by Phelps. Later, in 1907, the San Carlos Park Syndicate attempted to call the area ‘Oak Park’ and engaged on an elaborate sales campaign. Finally, in 1917, Frederick Drake of the Mercantile Trust installed gas and electricity to the area as well as improving the existing water infrastructure. By 1918, the first school was built, and the population slowly grew. In 1925 the residents voted for incorporation, and San Carlos was official born Drake continued to promote the town and coined the motto “The City of Good Living” (City of San Carlos 2017a; San Mateo County History Museum).

Modern

At the time of incorporation in 1925, San Carlos had only 600 inhabitants. It wasn't until the Second World War and post-war economic boom, that the City experienced a significant population increase. In 1940 it grew to 3,520 residents, and in 1950 it had a population of 14,371. Today the city is a predominantly residential settlement of 28,406 people, with a business and industrial area and small airport (City of San Carlos 2006; US Census Bureau).

Present Time

The proposed project site is a partially developed parcel of land that contains an existing 250,000-gallon water tank (30 feet high, 36 feet wide), a single 30-horsepower booster pump, surge tank and associated piping and electrical system infrastructure (i.e., above and below ground electric lines, electrical pole-mounted panel board, and poles), supervisory control and data acquisition (SCADA) system infrastructure (e.g., communication lines), and other minor infrastructure such as protective bollards. The site is secured by an approximately seven-foot-high chain-link security fence, and access to the site is controlled by a gate at the top of a 100-foot-long driveway that fronts Melendy Drive.

In addition to the water facilities noted, Cal Water leases a portion of the site for telecommunications equipment which include a cell tower (44'2" tall), a small (12 foot by 16 foot) equipment building, and emergency generator located along the eastern perimeter fence line. There is an additional cell tower (12 feet tall) to the east of the existing 250,000 tank adjacent to the fence line. Figure 3 shows photos of the existing site.

Records Search Results

A record search conducted by the NWIC indicated there are no known archaeological or historic resources within the project site; or within the 0.5-mile radius Area of Potential Effect (APE) surrounding the site. A previous report (S-36205 on the NWIC catalogue) was compiled for a telecommunications facility on the site in 2009 which showed no known cultural resources. The report recommended that archaeological monitoring was not necessary for ground moving activities on the site.

In addition to the NWIC, the Native American Heritage Commission (NAHC) was contacted for a record search of the Sacred Lands Inventory. The results showed no known Tribal Cultural Resources within 0.5 miles of the project site. Additionally, the NAHC recommended that five tribal representatives be contacted as an extension of the Sacred Lands search. These representatives were contacted by certified mail on March 28, 2017 (see Appendix C) and no replies were received from the representatives.

3.5.2 Regulatory Setting**California Environmental Quality Act**

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. Per CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1. CEQA applies to archaeological resources when (1) the archaeological resource satisfies the definition of a historical resource or (2) the archaeological resource satisfies the definition of a "unique archaeological resource." A unique archaeological resource

is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

Health and Safety Code, Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Penal Code Section 622.5

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

3.5.3 Discussion

Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?**

No Impact. The site and surrounding 0.5-mile APE do not contain any listed historic resources. The existing water tank on the site was constructed in 1963 by Cal Water. As the tank is over 50 years old, it has potential to be considered a cultural resource under CEQA. However, though a practical addition to the area, the construction of the tank does not contribute significantly to the local or regional history and does not appear to meet Criterion 1 for listing on the California Register. It is not associated with any significant person and does not appear eligible under Criterion 2. The construction of the existing water tank is similar to other water tanks of the region and era and does not embody distinctive architectural characteristics representative of the work of a master. It, therefore, does not appear to meet Criterion 3. As an architectural resource and not an archaeological site, it would not qualify for Criterion 4. The water tank is not considered eligible for listing on the California Register and it is not considered a historical resource for the purposes of CEQA. Therefore, as the water tank cannot be considered a resource, and as there are no other historic resources listed within 0.5 miles of the project site, implementation of the project would not result in substantial adverse change in the significance of a historic resource.

- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

Less Than Significant with Mitigation. The CHRIS records search determined there are no known prehistoric or historic cultural resources on the site or within a one-half mile radius surrounding the site. The potential for unanticipated discovery is low, although not negligible. Settlement of Native Americans on ridgelines and in elevated positions, such as the project site are not uncommon, and disturbance of unknown remains would be a significant impact.

To safeguard potential archaeological resources from impacts during construction, the following mitigation measures will be implemented to reduce impacts to less than significant:

Impact CUL-1: The proposed project could disturb unknown prehistoric or historic cultural resources, including human remains, during project construction.

Mitigation Measure CUL-1: In the event archaeological resources are unearthed during ground-disturbing activities, all ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where ground disturbing activities shall not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area.

All archaeological resources unearthed by project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. In anticipation of additional discoveries during construction, Archaeological Sensitivity Training will be carried out by a qualified archaeologist for all personnel who will engage in ground moving activities on the site. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes/Individuals shall be contacted and consulted, and Native American construction monitoring should be initiated.

The City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. If appropriate, the archaeologist may introduce archaeological monitoring on all or part of the site. An archaeological report will be written detailing all archaeological finds and submitted to the City and the Northwest Information Center (NWIC).

Effectiveness: This measure would minimize and/or avoid impacts on undetected archaeological resources to less than significant levels.

Implementation: By Cal Water or its contractor.

Timing: During all earth disturbing phases of project construction.

Monitoring: An archaeological report will be written detailing all archaeological finds and submitted to the City and the NWIC.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant with Mitigation. The cultural resources searches did not reveal any known burials on the site or in the APE. The geology of the site combined with a lack of evidence of cultural resources within the APE suggests that the project has a low likelihood of unknown buried human remains to be uncovered by construction activities. However, previous discoveries of human remains elsewhere in the City have been found, and with the undeveloped nature of the site, this potential could represent a significant impact. Implementation of the following mitigation measure would reduce impacts to less than significant.

Impact CUL-2: The proposed project could disturb unknown human remains during project construction.

Mitigation Measure CUL-2: If human remains are unearthed during construction of the proposed project, the City shall comply with State Health and Safety Code Section 7050.5. The City shall immediately notify the County Coroner and no further disturbance

shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD).

After the MLD has inspected the remains and the site, they have 48 hours to recommend to the landowner the treatment and/or disposal, with appropriate dignity, the human remains and any associated funerary objects. Upon the reburial of the human remains, the MLD shall file a record of the reburial with the NAHC and the project archaeologist shall file a record of the reburial with the NWIC. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Effectiveness: This measure would minimize and/or avoid impacts on undetected human remains to less than significant levels.

Implementation: By Cal Water or its contractor.

Timing: During all earth disturbing phases of project construction.

Monitoring: A report will be written detailing all finds of undetected human remains and submitted to the City and the NWIC.

This page intentionally left blank.

3.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.6.1 Environmental Setting

Energy consumption is closely tied to the issues of air quality and GHG emissions, as the burning of fossil fuels and natural gas for energy has a negative impact on both, and petroleum and natural gas currently supply most of the energy consumed in California.

In general, California’s per capita energy consumption is relatively low, in part due to mild weather that reduces energy demand for heating and cooling, and in part due to the government’s proactive energy-efficiency programs and standards. According to the California Energy Commission’s (CEC) 2015 Integrated Energy Policy Report, Californians consumed about 280,500 gigawatt hours (GWh) of electricity in 2014 and 13,240 million British thermal units (BTU) of natural gas in 2013. The CEC estimates that by 2025, California’s electricity consumption will reach between 297,618 GWh and 322,266 GWh, an annual average growth rate of 0.54 to 1.27 percent (CEC 2015), and natural gas consumption is expected to reach between 12,673 million and 13,731 million BTU by 2024, an average annual growth rate of -0.4 to 0.33 percent (CEC 2015).

In 2017, total electricity use in San Mateo County was 4,368 million kilowatt hours (kWh), including 2,805 million kWh of consumption for non-residential land uses (CEC 2019a). Natural gas consumption was 211million therms in 2017, including 94 million therms from residential uses (CEC 2019b).

Energy conservation refers to efforts made to reduce energy consumption to preserve resources for the future and reduce pollution. It may involve diversifying energy sources to include renewable energy, such as solar power, wind power, wave power, geothermal power, and tidal power, as well as the adoption of technologies that improve energy efficiency and adoption of green building practices. Energy conservation can be achieved through increases in efficiency in conjunction with decreased energy consumption and/or reduced consumption from conventional energy sources.

3.6.2 Regulatory Setting

Since increased energy efficiency is so closely tied to the State’s efforts to reduce GHG emissions and address global climate change, the regulations, policies, and action plans aimed at reducing GHG emissions also promote increased energy efficiency and the transition to renewable energy sources. The U.S. EPA and the State address climate change through numerous pieces of legislation, regulations, planning, policy-making, education, and implementation programs aimed at reducing energy consumption and the production of GHG.

While there are numerous regulations that govern GHG emissions reductions through increased energy efficiency, the following regulatory setting description focuses only on regulations that provide the appropriate context for the proposed potential energy usage during construction or operation of the tank. For example, the project would not result in permanently occupied buildings and thus the State building code requirements pertaining to energy efficiency are not discussed below. See the Environmental and Regulatory Setting discussion in Section 3.8, Greenhouse Gas Emissions, for a description of the key regulations related to global climate change, energy efficiency, and GHG emission reductions.

CARB Low Carbon Fuel Standard Regulation (LCFSR)

CARB initially approved the LCFS regulation in 2009, identifying it as one of the nine discrete early action measures in its original 2008 Scoping Plan to reduce California's GHG emissions. Originally, the LCFS regulation required at least a 10% percent reduction in the carbon intensity of California's transportation fuels by 2020 (compared to a 2010 baseline). On September 27, 2018, CARB approved changes to the LCFS regulation that require a 20% reduction in carbon intensity by 2030. These regulatory changes exceed the assumption in CARB's 2017 Climate Change Scoping Plan, which targeted an 18% reduction in transportation fuel carbon intensity by 2030 as one of the primary measures for achieving the state's GHG 2030 target.

3.6.3 Discussion

Would the project:

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**
- b) **Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

Less than Significant (a-b). The project is the installation of a new potable water tank within the City of San Carlos. The construction of the new tank would require the use of construction equipment and generate construction-related vehicle trips that would combust fuel, primarily diesel and gasoline. The use of this fuel energy is necessary to construct the tank and is not wasteful. In addition, as shown in Table 2-1, the City will include environmental protection measures such as limiting idling, which would reduce fuel use.

As described in the project description, the proposed project would not involve the development of facilities that include new energy intensive equipment. The on-site 80-horsepower pump is used approximately nine hours per day for the existing 250,000-gallon tank operations. The addition of a new water tank of the site would increase the pump use to 22 hours per day for both the existing and new tanks, thereby incrementally increasing the amount of energy used to operate the tanks. However, the use of the new tank would serve to provide both daily and emergency use water supplies to the area and would not constitute a significant impact for demand on fuel, electricity, or natural gas energy resources and would not result in the wasteful, inefficient, or unnecessary use of these resources. These activities would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency because no such plan applies to these types of facilities, and the proposed facilities would not interfere with the installation of any renewable energy system.

3.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Directly or indirectly cause 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? <i>Note: Refer to Division of Mines and Geology Special Publication 42.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.7.1 Environmental Setting

The following environmental setting information is taken from the Updated Geotechnical Engineering Investigation prepared for the project on June 17, 2014 and updated on January 24, 2017 (Krazan & Associates, Inc., 2017). The Krazan & Associates report was peer reviewed by Cotton Shires & Associates as part of the CEQA process (Cotton Shires & Associates, 2017). The peer review concurred with all findings presented in the Krazan report.

Regional Geology and Seismicity

The project site is located in the San Francisco Bay Region of the Coast Range Geologic Province. The Coast Range Geologic Province borders the Coast of California and generally consists of northwesterly/southeasterly trending ridges of granitic, metavolcanic, and metasedimentary rocks. Numerous northwest to southeast trending faults parallel to the trend of the Coast Ranges.

San Francisco Bay is a broad shallow depression within the Coast Ranges that has been subsequently filled with sedimentary deposits. In the vicinity of the project site, these deposits consist of unconsolidated sediments comprised of gravel, sand, silt, and clay that underlie broad valleys and flatlands. The sedimentary deposits vary in thickness from a few feet to about 600 feet east and west of the San Francisco Bay. More specifically, the site is underlain by the Jurassic-Cretaceous Franciscan Formation consisting of silty sands, and weathered sandstone.

Three major faults are located near the site -- the San Andreas Fault Zone, the Hayward Fault Zone, and the Calaveras Fault Zone. The San Andreas Fault is located approximately 2.4 miles west of the site and was the source of the 1906 San Francisco Earthquake. A southern extension of the Hayward Fault Zone is located approximately 16 miles east of the site. The Hayward Fault Zone is considered capable of producing an upper bound earthquake event of Richter magnitude 7.5. The last recorded movement of the Hayward Fault was in 1868. The Calaveras Fault is located approximately 23 miles east of the site and is also considered capable of producing large earthquakes.

Site Soil and Subsurface Conditions

Based on the findings of the geotechnical investigation (Krazan & Associates, Inc., 2017), the subsurface conditions found in the developed portions of the project site appear typical of those found in the geologic region of the site. In general, the developed portion of the site are covered with pavement consisting of approximately 2.5 inches of asphaltic concrete underlain by approximately 2.5 inches of aggregate base. Areas not covered by pavement consist of 6 to 12 inches of very loose gravelly silty sand. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated.

Beneath the pavement section and loose surface soils, approximately 12 inches of fill material was encountered within the borings drilled throughout the site. In addition, fill material was noted along the edges of the site. The fill material predominately consisted of silty sand and gravelly silty sand. The thickness and extent of fill material was determined based on limited test borings and visual observation. Thicker fill may be present at the site. Limited testing was performed on the fill material during the time of the field and laboratory investigations. The limited testing indicated that the fill soils have varying strength characteristics ranging from loosely placed to compacted.

Beneath the loose surface soils and fill materials, approximately 2 to 3 feet of very dense highly weathered sandstone was encountered. Field and laboratory tests suggested that these soils/rocks are moderately strong and slightly compressible.

Below approximately 3.5 to 4 feet, predominantly very dense weathered sandstone was encountered. Field and laboratory tests suggested that these soils/rocks are moderately strong and slightly compressible. These soils/rocks were slightly stronger than the upper soils and extended to the termination depth of the borings.

Free groundwater was not encountered in the borings. However, water table elevations may fluctuate with time, being dependent on seasonal precipitation, irrigation, land use, and

climactic conditions, as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during project construction.

3.7.2 Regulatory Setting

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act regulates development in California near known active faults due to hazards associated with surface fault ruptures. There are no Alquist-Priolo zones on the project site.

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. The act directs the U.S. Department of Conservation to identify and map areas prone to the earthquake hazards of liquefaction, earthquake-induced landslides, and amplified ground shaking. The act requires site-specific geotechnical investigations to identify potential seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy within the Zones of Required Investigation.

California Building Code

The City of San Carlos enforces the 2016 California Building Code (CBC) and requires all development within the City to comply with the most current CBC standards. The CBC covers grading and other geotechnical issues, building specifications, and non-building structures. The CBC requires that a foundation and soil investigations report be prepared by a registered design professional for seismic design categories C, D, E, and F as defined by the CBC. The site-specific soil engineering and engineering geology reports shall provide measures to reduce potentially significant seismic hazards such as surface fault ruptures, ground shaking, liquefaction, and seismically-induced slope failures and settlement, regardless of the proposed grading on slopes. The reports would be reviewed by City staff prior to approval of final project plans.

The CBC requires that any required geotechnical report(s) (i.e. engineering geology and soil engineering reports) be prepared by a registered professional to evaluate geologic and seismic hazards on proposed developments, as discussed above. The site-specific geotechnical report(s) shall provide measures to reduce potentially significant geologic hazards, such as expansive and corrosive soils, differential settlement, and slope stability. The engineering geology and soil engineering reports would be reviewed by City staff prior to approval of final project plans.

San Carlos General Plan

The Community Safety and Services Element in the City's General Plan contains the following geologic hazards goals and policies relevant to the proposed project:

Goal CSS-1: Reduce the potential loss of life, injury and property damage due to seismic and geologic hazards.

Policy CSS-1.1: The City Building Official shall verify geotechnical and soils reports for development in areas where potentially serious geologic risks exist. These reports shall address the degree of hazard, design parameters for the project based on the hazard and appropriate mitigation measures. Based on the findings of these reports, the City shall require that new structures are designed and built to withstand the effects of seismically-induced ground failure.

Policy CSS-1.2: Prohibit structural development in known areas where seismic and geological hazards cannot be mitigated.

Policy CSS-1.3: Continue to monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.

Policy CSS-1.4: Enforce requirements of the Alquist-Priolo Special Studies Zones Act should any fault traces in San Carlos be discovered and prove to be active or potentially active.

Policy CSS-1.5: Continue to incorporate seismic risk analysis into the City's ongoing building inspection program through thorough review of projects by plan check and field inspections.

Policy CSS-1.7: Continue to incorporate geotechnical hazard data into future land use decision-making, site design and construction standards.

Policy CSS-1.9: Continue to ensure that seismic hazards are mitigated to the greatest extent possible for critical public facilities, infrastructure and emergency services.

3.7.3 Discussion

Consistent with the California Supreme Court decision in *California Building Industry Association v. Bay Area Air Quality Management District* (62 Cal. 4th 369; 2015), the impact discussion presented below focuses on the project's effect on geology and soils rather than the effect of geologic hazards and site conditions upon the proposed project. The project is evaluated to determine whether it would create or exacerbate soil or geologic conditions identified in each of the above significance threshold criteria.

Would the project:

- a) **Directly or indirectly cause 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 significant evidence of a known fault?**

No Impact. The nearest earthquake fault is located 2.4 miles west of the project site. There are no Alquist-Priolo zones on the project site. The site has been previously developed with a water tank and no evidence of fault traces have been discovered.

- ii) **Strong seismic ground shaking?**

Less Than Significant Impact. The project site is located in the San Francisco Bay Area which is considered one of the most seismically active regions in California. Significant earthquakes have occurred in this area and strong to violent ground-shaking in the project area can be expected because of a major earthquake on one of the faults in the region. The project site would be subjected to considerable ground motion during an earthquake on the San Andreas or San Gregorio Fault. The proposed project shall be designed and constructed in accordance with the 2016 California Building Code. In addition, the project shall adhere to the seismic design parameters and design and construction recommendations of the Geotechnical Study prepared by Krazan & Associates, Inc. (2017).

As described in Section 2.3.6, Cal Water has designed the project to minimize potential risks and hazards from tank leaks and/or failure. The tank design would comply with applicable codes governing seismic risks for liquid storage tanks, including requirements to withstand design-level and maximum anticipated ground acceleration caused by a seismic event in seismic design Class "C". The tank structure was designed to the latest American Water Works Association (AWWA) seismic standards using the site-specific seismic parameters identified in the geotechnical report. In addition, the tank inlet / outlet includes a Flex-tend expansion joint that allows for movement without breakage in the event of a maximum credible earthquake.

The project would have a less than significant impact related to seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands. The City of San Carlos General Plan Figure 8-3 Liquefaction Potential shows the project site has having a very low potential for liquefaction. The geotechnical report prepared for the project concluded that site soils are capable of adequately supporting the new water tank (Krazan & Associates, Inc., 2017). The report includes recommendations to reduce the potential for seismically-induced ground failure, including over-excavating and replacing the native material with compacted fill. The Krazan report recommends that four (4) feet of native solid be excavated at the tank pad. The Cotton Shires peer review noted that based on the subsurface soils information provided, hard bedrock will be encountered within 0.5 to 2.0 feet of the surface. Cotton Shires was unclear why four feet of excavation is recommended at the tank pad. Cal Water has incorporated all the Krazan report recommendations into the project's design. Prior to issuance of a building permit, the City will require a letter from the Geotechnical report preparer to confirm the project as designed, is implementing the recommendations of the report and considers the peer review comments. Therefore, the risk of seismically-induced ground failure affecting the proposed project is low.

iv) Landslides?

Less Than Significant Impact. The project site is on a gently to moderately sloping hillside and is in an area with "Many Landslides" according to the Association of Bay Area Governments (ABAG) Existing Landslide hazard map (ABAG, 2017). The geotechnical report prepared for the project concluded that site soils are capable of adequately supporting the new water tank (Krazan & Associates, Inc., 2017). The report includes recommendations for slope construction/reconstruction and slope protection to ensure slope stability at the site. These include reconstructing slopes at an inclination not exceeding 2:1 (horizontal to vertical) and using rip rap and/or re-vegetation to stabilize the slopes, among other measures. Cal Water has incorporated these recommendations into the design of the project. Therefore, the potential impacts from seismically-induced landslides are considered less than significant.

b) Result in significant soil erosion or the loss of topsoil?

Less Than Significant Impact. The tank site location was chosen because it is in an area that is already flat and paved and would not require significant grading. Cal Water estimates the project would result in 123 cubic yards of cut and 0.3 cubic yards of fill for the ring wall tank foundation and connecting pipes. Excavation and fill for the tank foundation and connecting pipes could potentially cause soil erosion or loss of topsoil during construction. Construction of the proposed project would disturb less than one acre and, therefore, would not require the preparation of a Stormwater Pollution Prevention Plan (SWPPP) under the statewide Construction General Permit (see Hydrology for further discussion of SWPPP requirements); however, the City of San Carlos requires preparation of a SWPPP even for projects exempt from the permit (San Carlos General Plan Action EM-5.10). Therefore, a SWPPP would be prepared and implemented for the proposed project. The SWPPP would include BMPs to prevent erosion and loss of topsoil during construction. BMPs could include storm water inlet protection, the use of fiber rolls, sandbags and earthen berms to prevent runoff water from leaving the site, and hydro-seeding of disturbed areas, among other measures. The implementation of the SWPPP would prevent substantial erosion and loss of topsoil during construction and would protect stormwater runoff water quality. The project would have a less than significant impact on soils and loss of topsoil during project construction. No soil disturbance or potential for erosion would occur during project operation.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As described in response to question a) iv, although the project site is in an area with many landslides the area identified for the new water tank is flat and not subject to landslides. The site preparation recommendations in the geotechnical report incorporated into the project would prevent landslides from significantly impacting the project. As described in response to question a) iii, the project site has a very low potential for liquefaction. Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. As the potential for liquefaction to occur at the site is very low, the potential for lateral spreading to impact the project site is also very low.

Subsidence is the sinking of the Earth's surface in response to geologic or man-induced causes. Although the Geotechnical Study does not specifically mention subsidence, it does state that the site soils have a very loose consistency and low strength characteristics and are highly compressible when saturated. Loose to medium dense unsaturated sandy soils can settle during strong seismic shaking. The Geotechnical Report contains recommendations for site preparation such as the over excavation of site soils and replacement with compacted fill to prevent ground sinking or subsidence. These recommendations have been incorporated into the project and therefore the likelihood of significant subsidence is low.

The project would have a less than significant impact on landslide potential, lateral spreading, subsidence, liquefaction or collapse.

d) Be located on expansive soil, as noted in the 2010 California Building Code, creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. The City of San Carlos General Plan Figure 8-4 Expansive Soils shows the project site does not contain expansive soils. The geotechnical report prepared for the project concluded that site soils are capable of adequately supporting the new water tank (Krazan & Associates, Inc., 2017). The report includes recommendations to ensure that the project is not adversely impacted by soil and subsurface conditions at the site. Cal Water has incorporated these recommendations into the project's design. Therefore, the risk of expansive soils affecting the proposed project is low.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. No wastewater or septic tank systems are proposed as part of the proposed project.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation. The project site is situated in the San Francisco Bay Region of the Coast Range Geologic Province. The Bay Region is known to contain sedimentary deposits² which, in the region of the project site, are comprised of gravels, sands, silts, and clays. These types of deposits are known to yield fossilized remains. Although project construction would not require excavation to a depth where paleontological resources are generally encountered, the geologically active nature of the Bay Area may have brought fossils closer to the surface. If the discovery of paleontological or geological resources were to occur,

² Krazan & Associates, Inc.

the implementation of Mitigation Measure GEO-1 would safeguard unknown paleontological resources and reduce impacts to less than significant.

Impact GEO-1: The proposed project could disturb unknown paleontological resources during project construction.

Mitigation Measure GEO-1: In the event paleontological resources are unearthed during ground-disturbing activities, all ground-disturbing activities shall be halted so that the find can be evaluated. Construction activities shall not be allowed to continue on the site until a qualified paleontologist has examined the newly discovered artifact(s) and has evaluated the area of the find. All paleontological resources unearthed by project construction activities shall be evaluated by a qualified professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology. In anticipation of additional discoveries during construction, Paleontological Sensitivity Training will be carried out by a qualified archaeologist for all personnel who will engage in ground moving activities on the site. The City shall coordinate with the paleontologist to develop an appropriate treatment plan for the resources. The plan may include implementation of paleontological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. If appropriate, the paleontologist may introduce paleontological monitoring on all or part of the site. A paleontological report will be written detailing all paleontological finds and submitted to the City and University of California Museum of Paleontology at Berkley (UCMP).

Effectiveness: This measure would minimize and/or avoid impacts on undetected paleontological resources to less than significant levels.

Implementation: By Cal Water or its contractor.

Timing: During all earth disturbing phases of project construction.

Monitoring: A paleontological report will be written detailing all archaeological finds and submitted to the City and the NWIC.

This page intentionally left blank.

3.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.8.1 Environmental Setting

Gases that trap heat in the atmosphere and affect regulation of the Earth’s temperature are known as greenhouse gases (GHGs). GHGs that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHGs are emitted to the atmosphere naturally by biological and geological processes, such as evaporation (water vapor), aerobic respiration (carbon dioxide), and off-gassing from low oxygen environments including swamps or exposed permafrost (methane); however, GHG emissions from human activities, such as fuel combustion (carbon dioxide) and refrigerants (hydrofluorocarbons), are primarily responsible for the significant contribution to overall GHG concentrations in the atmosphere, climate regulation, and global climate change.

Human production of GHGs has increased steadily since pre-industrial times (approximately pre-1880) and atmospheric carbon dioxide concentrations in the atmospheric carbon dioxide concentrations have increased from a pre-industrial value of 280 ppm in the early 1800’s to 405 ppm in November 2017 (NOAA, 2017). The effects of increased GHG concentrations in the atmosphere include climate change (increasing temperature and shifts in precipitation patterns and amounts), reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations’ Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHGs – carbon dioxide, methane, nitrous oxide, and sulfur hexafluoride – and two groups of gases – hydrofluorocarbons and perfluorocarbons. These GHG are the primary GHG emitted into the atmosphere by human activities. The six common GHG’s are described below.

- Carbon Dioxide (CO₂) is released to the atmosphere when fossil fuels (oil, gasoline, diesel, natural gas, and coal), solid waste, and wood or wood products are burned.
- Methane (CH₄) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in municipal solid waste landfills and the raising of livestock.
- Nitrous oxide (N₂O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels.
- Sulfur hexafluoride (SF₆) is commonly used as an electrical insulator in high voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF6 occur during maintenance and servicing as well as from leaks of electrical equipment.

- Hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) are generated in a variety of industrial processes. Although the amount of these gases emitted into the atmosphere is small in terms of their absolute mass, they are potent agents of climate change due to their high global warming potential.

GHG emissions from human activities contribute to overall GHG concentrations in the atmosphere and the corresponding effects of global climate change (e.g., rising temperatures, increased severe weather events such as drought and flooding). GHGs can remain in the atmosphere long after they are emitted. The potential for a GHG to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO₂, which has a GWP of one. By comparison, CH₄ has a GWP of 25, which means that one molecule of CH₄ has 25 times the effect on global warming as one molecule of CO₂. Multiplying the estimated emissions for non-CO₂ GHGs by their GWP determines their carbon dioxide equivalent (CO₂e), which enables a project's combined global warming potential to be expressed in terms of mass CO₂ emissions.

3.8.2 Regulatory Setting

In 2006, the California State Legislature adopted the California *Global Warming Solutions Act of 2006*, Assembly Bill (AB) 32, which required CARB to: 1) determine 1990 statewide GHG emissions, 2) approve a 2020 statewide GHG limit that is equal to the 1990 emissions level, 3) adopt a mandatory GHG reporting rule for significant GHG emission sources, 4) adopt a Scoping Plan to achieve the 2020 statewide GHG emissions limit, and 5) adopt regulations to achieve the maximum technologically feasible and cost-effective reductions.

In 2007, CARB approved a statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 MMTCO₂e, which was subsequently increased to 431 MMTCO₂e. (CARB 2007, 2014). In 2008, CARB adopted its *Climate Change Scoping Plan*, which projects, absent regulation or under a "business as usual" (BAU) scenario, 2020 statewide GHG emissions levels of 596 million MTTCO₂e and identifies the numerous measures (i.e., mandatory rules and regulations and voluntary measures) that will achieve at least 174 million MTTCO₂e of reductions and reduce statewide GHG emissions to 1990 levels by 2020 (CARB, 2009). In 2011, CARB released a supplement to the 2008 *Scoping Plan Functional Equivalent Document (FED)* that included an updated 2020 BAU statewide GHG emissions level projection of 507 million MTTCO₂e (CARB, 2011), and in 2014 CARB adopted its First Update to the Climate Change Scoping Plan (CARB, 2014). The First Update to the Scoping Plan updated the 2020 BAU statewide emissions project to account for changes in economic forecasts of fuel and energy demand and other factors. Using 2009 to 2011 as the base year, the 2014 Scoping Plan Update reset the 2020 statewide BAU emissions projection at 509 MMTCO₂e.

On December 24, 2017, CARB adopted a second update to the Scoping Plan, the 2017 Scoping Plan. Based on information contained in the 2017 Scoping Plan, California is on track to reduce GHG emissions to 1990 levels by 2020 (CARB, 2017). The Plan also identifies the new and updated measures that must be implemented to achieve the 2030 target (i.e., reduce emissions by 40 percent below 1990 levels by 2030), as established under Executive Order B-30-15 and Senate Bill (SB) 32. The major elements of the 2017 Scoping Plan Update framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks;
- Low Carbon Fuel Standard, with an increased stringency (18 percent by 2030);
- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030;

- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks;
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH₄ and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030;
- Continued implementation of SB 375 (Sustainable Community and Climate Protection Act);
- Post-2020 Cap-and-Trade Program that includes declining caps;
- 20 percent reduction in GHG emissions from refineries by 2030; and
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

The City of San Carlos General Plan

The following goals, policies and actions in the City of San Carlos General Plan Environmental Management Element may be applicable to the proposed project:

- Policy EM-7.1: Take appropriate action to address climate change and reduce greenhouse gas emissions.
- Policy EM-7.3: Participate in regional, State and federal efforts to reduce greenhouse gas emissions and mitigate the impacts resulting from climate change.
- Action EM-7.1: Implement strategies of the Climate Action Plan to achieve the greenhouse gas reduction target.

The City of San Carlos Climate Action Plan

In 2009, the City of San Carlos adopted a Climate Action Plan (CAP) to serve as a guiding document to identify methods that the City and community can implement to significantly reduce GHG emissions and work toward meeting Assembly Bill 32, the Governor's Order S-03-05, and Public Resources Code Section 21093.3. The CAP sets a reduction goal of 35 percent below 2005 levels by 2030. The CAP lays the groundwork for this reduction goal through the implementation of GHG reduction strategies focusing on energy use, solid waste and recycling, and transportation and land use. Most of the measures identified in the CAP are applicable to City operations or apply to residential and commercial development.

Existing GHG Emissions

The project site currently has one, 30-horsepower, electric booster-pump on-site that operates for approximately nine hours per day. Operation of the pump generates approximately 14.3 MTCO_{2e} annually due to electricity consumption (see Appendix E for calculations).

AB 32 and Related Executive and Legislative Actions

In June 2005, Governor Arnold Schwarzenegger issued Executive Order S-3-05. This order established the State's GHG emission targets for 2010 (reduce GHG emissions to 2000 levels), 2020 (reduce GHG emissions to 1990 levels), and 2050 (reduce GHG emissions to 80 percent below 1990 levels), created the Climate Action Team and directed the Secretary of the California Environmental Protection Agency to coordinate efforts with meeting the GHG targets with the heads of other state agencies.

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on statewide GHG emissions proclaimed in Executive Order S-3-05 and set December 31, 2020 as the date for achieving GHG reduction levels. In order to effectively implement the emissions cap, AB 32 also

directed CARB to establish a mandatory reporting system to track and monitor GHG emissions from large stationary sources, prepare a Scoping Plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

In September 2016, Governor Edmund G. Brown signed Senate Bill (SB) 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction target to reduce GHG emissions by 40 percent below 1990 levels by 2030 a requirement, as opposed to a goal. AB 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, “protect the state’s most impacted and disadvantaged communities ...[and] consider the social costs of the emissions of greenhouse gases.”

SB 375 Sustainable Communities and Climate Protection Act

SB 375 went into effect in January 2009. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California’s 18 regional Metropolitan Planning Organizations (MPOs). In 2010, CARB adopted GHG reduction targets for the San Francisco Bay region. The targets were set as 7% and 15% reduction in per capita passenger vehicle GHG reductions by 2020 and 2035 (relative to 2005). The regional strategy for achieving VMT goals mandated under SB 375 is presented in Plan Bay Area 2040. In March 2018, CARB established new regional GHG reduction targets for the San Francisco Bay region (CARB, 2018b). The new targets are 10% reduction in per capita passenger vehicle GHG reductions by 2020 and a 19% reduction by 2035 (relative to 2005).

CARB Scoping Plan

The CARB Scoping Plan is the State’s comprehensive plan for identifying how the State will reach its GHG reduction targets established by AB 32 and SB 32. CARB has prepared several iterations of the Scoping Plan. CARB adopted its initial Scoping Plan in 2008, prepared its first update to the Scoping Plan in 2014, and prepared its second update to the Scoping Plan in 2017. Per AB 32, CARB is required to update the Scoping Plan every five years.

CARB’s current 2017 Climate Change Scoping Plan was adopted on December 14, 2017. The primary objective of the 2017 Climate Change Scoping Plan is to identify the measures needed to achieve the State’s GHG reduction target for 2030 (to reduce emissions by 40 percent below 1990 levels; CARB, 2017a). To achieve this GHG reduction target, the 2017 Climate Change Scoping Plan includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons by 2050. The major elements of the 2017 Climate Change Scoping Plan include, but are not limited to:

- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030);
- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030;
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks;
- Continued implementation of SB 375;

Bay Area Air Quality Management District

As described in Section 3.3.2, the BAAQMD’s 2017 Clean Air Plan is a comprehensive, multi-pollutant plan intended to reduce criteria air pollutant concentrations and public exposure to

TACs, as well reduce GHG emissions. A key goal of the BAAQMD's 2017 Clean Air Plan is to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, consistent with GHG reduction targets adopted by the State.

3.8.3 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable.

Less Than Significant Impact. The BAAQMD has established a 1,100 MTCO_{2e} operational GHG threshold for non-stationary sources, which is the applicable threshold for the proposed project (BAAQMD, 2017d). The BAAQMD has not established a quantitative threshold for construction-related emissions. The proposed project would produce short-term GHG emissions from construction-related fuel combustion, as well as additional long-term GHG emissions from increased use of the 30-horsepower, electric booster pump. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year. The proposed project's GHG emissions would not be significant for reasons discussed below.

Construction of the proposed project is anticipated to commence in Summer 2018 and last for approximately 6-8 months. This relatively short time frame as well as limited equipment usage (since the site has previously been graded and the tank would be bolted into place), would not produce substantial GHG emissions even when combined with the additional GHG emissions resulting from additional booster-pump operation.

At nine hours per day, operation of the booster-pump produces approximately 14.3 MTCO_{2e} annually. Under the proposed project, the same booster pump would need to be run for approximately 22 hours per day. At 22 hours per day, the booster pump would produce approximately 35.0 MTCO_{2e}, or approximately 20.7 MTCO_{2e} more than existing conditions (see Appendix E for calculations). This is substantially below the BAAQMD's annual operational GHG threshold of 1,100 MTCO_{2e}.³ Thus, the combined construction and operational emissions associated with the proposed project would be substantially below the 1,100 MTCO_{2e} threshold. This impact would be less than significant.

b) Conflict with an applicable, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. GHG emissions from off-road equipment, electricity generation, and transportation identified and planned for in the BAAQMD's 2017 Clean Air Plan (BAAQMD, 2017c). A primary objective of the 2017 Clean Air Plan is to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

³ The proposed project would also include the installation of two new lights. The lights would only be run at night, and be equipped with motion sensor detection system technology to prevent false tripping from the environment. Based on information provided by the manufacturer, the LED lights have a typical energy savings of 72% (Lithonia Lighting, 2017). GHG emissions associated with the light's electricity consumption would be nominal compared to those generated from booster pump operation and have therefore not been quantified.

Implementation of the proposed project would alter operations at the site in a limited capacity. The most notable changes related to GHG would be:

- Additional runtime of the booster pump; and
- Installation of additional lighting.

As demonstrated above in response a), emissions resulting from construction and operation of the proposed project would be substantially below the 1,100 MTCO₂e GHG threshold, which was developed to demonstrate consistency with the 2020 reduction goal. GHG emissions associated with project operation would continue to be consistent with future GHG reduction goals in a post-2020 scenario, since emissions are so low.

The project would be consistent with the overarching goals of reducing GHG emissions to be consistent with state regulatory requirements and would be consistent with applicable policies contained in the San Carlos General Plan and CAP.

The project would not conflict with any plan, policy or regulations adopted for the purposes of reducing greenhouse gas emissions; therefore, the project would have a less than significant impact.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 Environmental Setting

Section 2.1 Project Location and Site Description in Project Description describes existing site conditions and surrounding land uses. Development at the site is concentrated on a flat pad on the eastern portion of the parcel at approximately 515 feet elevation and consists of an existing 250,000-gallon steel water tank (30 feet high, 36 feet wide), a single 30-horsepower booster pump, surge tank and associated piping and electrical system infrastructure (i.e., above and below ground electric lines, electrical pole-mounted panel board, and poles), supervisory control and data acquisition (SCADA) system infrastructure (e.g., communication lines), and other minor infrastructure such as protective bollards. The flat portions of the site and the access driveway are asphalt paved. The site is bound by an approximately seven-foot-high chain-link security fence, and access to the site is controlled by a gate at the top of a 100-foot-long driveway that fronts Melendy Drive.

In addition to the water facilities noted, Cal Water leases a portion of the site for telecommunications equipment which include a cell tower (44'2" tall), a small (12 foot by 16 foot) equipment building and emergency generator located along the eastern perimeter fence line. There is an additional cell tower (12 feet tall) to the east of the existing 250,000 tank adjacent to the fence line.

Other than materials needed for maintenance of the existing facilities on site (paints, solvents, etc.) no hazardous materials are used on site. No hazardous materials are ever stored on site.

3.9.2 Regulatory Setting

Federal and State Regulations

The US Environmental Protection Agency (US EPA) regulates the disposal of hazardous wastes under the Resource Conservation and Recovery Act (RCRA). The US EPA maintains lists of federally regulated hazardous wastes which are generally characterized as ignitable, corrosive liquid, reactive, and toxic.

The California Department of Toxic Substances Control regulates the disposal of non-RCRA hazardous wastes in California (22 CCR §66261 et. al). California has adopted hazardous waste listings similar to the RCRA hazardous waste lists.

Waste classified as hazardous is managed for safe and protective handling for storage, transportation, treatment, and disposal.

San Carlos General Plan

The Land Use and Community Safety and Services Elements in the City's General Plan contain the following hazardous materials goal and policies relevant to the proposed project:

Goal LU-9: Protect and enhance all residential neighborhoods.

Policy LU-9.17: Require exterior building materials to be non-combustible in areas of potential high fire hazard.

Goal CSS-3: Protect lives and property from risks associated with fire-related emergencies.

Policy CSS-3.6: Continue to enforce building code regulations that minimize fire hazards in areas subject to a very high fire severity zone (VHFSZ) risk west of Alameda de las Pulgas and prohibit any structural development in areas where wildland urban fire hazards cannot be mitigated under an agreement addressing alternate means of protection and materials agreement.

Policy CSS-3.13: Ensure that property owners maintain property in a manner that minimizes fire hazards through the removal of vegetation, hazardous structures and materials and debris as governed under the City Municipal Code for enforcement.

Goal CSS-4: Protect the community from the harmful effects of hazardous materials.

Policy CSS-4.1: Prohibit uses involving the manufacturing of hazardous materials throughout the city. Hazardous materials are defined in Chapter 6.95, Section 25501 0-1 of the Health and Safety Code. This policy applies only to the direct manufacture of hazardous substances. It does not apply to the storage or use of such materials in conjunction with permitted industrial uses.

Policy CSS-4.2: Require producers of and users of hazardous materials in San Carlos to conform to all local, State and federal regulations regarding the production, disposal and transportation of these materials.

Policy CSS-4.3: Mitigate hazard exposure to and from new development projects through the environmental review process, design criteria and standards enforcement.

Policy CSS-4.5: Where deemed necessary, based on the history of land use, require site assessment for hazardous and toxic soil contamination prior to approving development project applications.

Policy CSS-4.6: Prohibit land uses and development which emit odors, particulates, light glare, or other environmentally sensitive contaminants from being located within proximity of schools, community centers, senior homes and other sensitive receptors. Sensitive receptors shall be prohibited from locating in the proximity of environmentally sensitive contaminants.

Policy CSS-4.9: Encourage the use of green building practices to reduce potentially hazardous materials in construction materials.

Goal CSS-6: Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.

Policy CSS-6.2: Preserve a Basic Emergency Operation Plan consistent with the National Incident Management System (NIMS).

Policy CSS-6.3: Maintain City Hall as the Emergency Operations Center (EOC) in San Carlos and provide for fully-functional back up EOC for City staff.

3.9.3 Discussion

Would the project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

No Impact. The proposed project is a new 350,000-gallon water tank at a paved site that already has an existing water tank that would remain. The proposed project would not include the routine transport, use, or disposal of hazardous materials. The construction of the new water tank would involve the use of materials such as paints, solvents, vehicle fluids, etc. but these would be used according to manufacture directions and would only be stored on site during construction. Operations at the site would not change after construction of the new tank and no hazardous materials would be transported, used or disposed of at the site. The project would be consistent with the General Plan goals and policies listed above.

- 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?**

Less Than Significant Impact. Project construction would involve the short-term use of toxic and hazardous substances in the form of vehicle fuels and fluids, paints, coatings and other typical construction materials. The use, storage and application of any toxic or hazardous substances would be regulated by federal, state and local regulations. The compliance with existing hazardous materials regulations would reduce any chance of upset conditions to less than significant levels. There is no potential for accidental release of hazardous materials after project construction.

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

Less than Significant Impact. Heather Elementary School is located approximately 150 feet east of the project site. No other schools are located within one-quarter mile of the site. As described above in response to question a), no hazardous waste is generated or stored at the project site. The project does not have the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or hazardous water within one-quarter mile of an existing or proposed school. Diesel particulate matter (DPM), a Toxic Air Contaminant (TAC), would be generated during project construction. As described in section 3.3.3, project construction emissions would be less than significant and would not generate substantial pollutant concentrations at sensitive receptor locations.

- 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?**

No Impact. The project site is not listed pursuant to Government Code Section 65962.5 by the Department of Toxic Substances Control (CalEPA, 2017).

- 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 or excessive noise for people residing or working in the project area?**

Less Than Significant Impact. The proposed project site is within Airport Influence Area “A” for San Carlos Airport (C/CAG, 2004) and San Francisco International (SFO) Airport (C/CAG, 2012). San Carlos Airport is located approximately two miles east, and SFO is located approximately 10 miles northeast, of the project site. There are no land use restrictions for Influence Area “A”, and this area only has a requirement to notify potential buyers of property in this area that there is an airport in the vicinity of the property (C/CAG, 2004 and 2012). The site is outside of Airport Influence Area B, the more restrictive zone, for either airport (C/CAG, 2004; C/CAG, 2012) and not located within any airport-related noise compatibility zone. Thus, the proposed project would result in a less than significant impact on safety hazard for people residing or working in the proposed project area.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No Impact. The proposed project is a new water storage tank and would not impair implementation or physically interfere with the City’s adopted emergency response plan or evacuation plan. The San Carlos Emergency Response Plan establishes evacuation routes, identifies agencies responsible for emergency response and summarizes and assesses potential threats and hazards. The San Mateo County Sheriff’s Office of Emergency Services (OES) is responsible for coordinating emergency response in the county. The OES operates under a Joint Powers Agreement with the 20 incorporated cities in the county (City of San Carlos, 2009). The project would not impact the City or County’s emergency response procedures.

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?**

No Impact. The San Carlos General Plan Figure 8-7 Areas at Risk from Wildland Fires in Western Foothills shows the project site is in an area of moderate wildfire threat to development (City of San Carlos, 2009). The proposed project is a new water storage tank and does not introduce new structures or people to risk of loss, injury, or death from wildland fires. Rather, the proposed project would improve Cal Water’s overall water system capabilities and ability to provide water in times of emergency, such as an earthquake or a wildland fire.

3.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.10.1 Environmental Setting

San Carlos has a Mediterranean climate, with the vast majority of the precipitation from the months of November to April. On average, San Carlos receives 22 inches of rain annually. San Carlos receives an average of 264 days of sunshine annually. The July average high is around 78 degrees Fahrenheit, and the January average low is 42 degrees (Sperlings 2019).

Local Watershed

There are no waterbodies on the project site. The closest creeks to the site are Brittan Creek and Pulgas Creek, located approximately 1/3 mile to the south and 1/2 mile to the north of the site, respectively. Pulgas and Brittan Creeks are the two main creeks within the City of San Carlos. The creeks have mostly unhardened channels in the upper reaches and hardened channels in the lower flatlands, where Brittan Creek joins Pulgas Creek via an underground

conduit (paralleling El Camino Real). Following the confluence of Pulgas Creek and Brittan Creeks, the combined flow drains into Smith Slough south of Bair Island (City of San Carlos, 2009). These creeks are not recharged by groundwater. Consequently, they are intermittent and generally flow during the winter wet-weather season and from irrigation runoff during the dry months (City of San Carlos, 2009).

The health of the watersheds in San Carlos is typical of urbanized areas. Upland sections of the creeks tend to have less pollution while urbanized portions of the waterways contain contaminants. Various contaminants have been identified in San Carlos creeks including polychlorinated biphenyls (PCBs), which can persist in the tissues of animals found in the creeks, as well as ultimately pollute the Bay (City of San Carlos, 2009).

Ground Water

The project site is located in the San Mateo Subbasin of the Santa Clara Valley Groundwater Basin. The San Mateo Subbasin is bounded by the Westside Basin to the north, the San Francisco Bay to the east, San Francisquito Creek to the south, and the Santa Cruz Mountains to the west. The basin is composed of alluvial fan deposits formed by tributaries to San Francisco Bay, that drain the basin (City of San Carlos, 2009). Borings conducted as part of the geotechnical investigation did not encounter free ground water at a depth of 8 to 12.5 feet. Fluctuations in groundwater levels could occur from variations in rainfall, flooding and other factors, and groundwater levels may be different at different times and locations (Krazan & Associates, Inc., 2017).

Stormwater Runoff Patterns

Runoff from the developed portion of the site is captured and piped to the City storm drain system in Melendy Drive. Runoff from the undeveloped portion of the site either percolates into the soil or sheet flows down the steep slopes to the sidewalk and gutter along Melendy Drive and eventually enters the storm drain system.

Flooding

The project site is not within in a Federal Emergency Management Agency (FEMA) 100-year flood hazard area, according to the Flood Insurance Rate Map for San Mateo County and unincorporated areas, Panel 0282E (FEMA, 2012). Due to its elevation, the project site is not subject to risks from sea level rise or seiches. There are no dams located in an area where dam failure could impact the project site due to dam failure.

3.10.2 Regulatory Setting

In addition to CEQA, other federal and state laws apply to the hydrology and water quality identified in this report. Each of these laws is identified and discussed below.

Federal Clean Water Act

The Clean Water Act (CWA) is the primary federal legislation governing water quality and forms the basis for several state and local laws throughout the nation. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Important and applicable sections of the Act are:

- Section 404 authorizes the United States (U.S.) Army Corps of Engineers (USACE) to regulate the discharge of dredged or fill material to waters of the U.S., including wetlands. The USACE issues individual site-specific or general (Nationwide) permits for such discharges.
- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. The State implements Section 303 through the State Water Resources Control Board and

Regional Water Quality Control Board (RWQCB), as discussed below. Section 304 requires the U.S. Environmental Protection Agency to publish water quality criteria that accurately reflects the latest scientific knowledge on the kind of effects and extent of effects that pollutants in water may have on health and welfare. Section 304 also provides guidance to the State in adopting water quality standards.

- Section 401 requires an applicant for any Federal permit that proposes an activity that may result in a discharge to “waters of the U.S.” to obtain certification from the State that the discharge will comply with other provisions of the CWA. In California, a Water Quality Certification is provided by the State Water Resources Control Board and/or RWQCB.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), which is a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. In California, this permit program is administered by the RWQCBs, and is discussed in detail below.

National Pollutant Discharge Elimination System

The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added Section 402(p), which established a framework for regulating nonpoint source storm water discharges under the NPDES. The NPDES General Construction Permit requirements apply to clearing, grading, and disturbances to the ground such as excavation. Construction activities on one or more acres are subject to a series of permitting requirements contained in the NPDES General Construction Permit. This permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to be implemented during project construction. The project sponsor is also required to submit a Notice of Intent (NOI) with the State Water Resources Control Board Division of Water Quality. The NOI includes general information on the types of construction activities that would occur on the site.

Porter-Cologne Water Quality Control Act

The state’s Porter-Cologne Water Quality Control Act, as revised in December 2007 (California Water Code Sections 13000-14290), provides for protection of the quality of all waters of the State of California for use and enjoyment by the people of California. It further provides that all activities that may affect the quality of waters of the state shall be regulated to obtain the highest water quality that is reasonable, considering all demands being made and to be made on those waters. The Act also establishes provisions for a statewide program for the control of water quality, recognizing that waters of the state are increasingly influenced by interbasin water development projects and other statewide considerations, and that factors such as precipitation, topography, population, recreation, agriculture, industry, and economic development vary regionally within the State. The statewide program for water quality control is, therefore, administered most effectively on a local level with statewide oversight. Within this framework, the Act authorizes the State Water Resources Control Board and RWQCBs to oversee the coordination and control of water quality within California.

State Water Resources Control Board

Created by the California State Legislature in 1967, the State Water Resources Control Board holds authority over water resources allocation and water quality protection within the State. The five-member State Water Resources Control Board allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine RWQCBs. The mission of the State Water Resources Control Board is to, “preserve, enhance, and restore the quality of California’s water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.” The proposed project is under the jurisdiction of the San Francisco Bay RWQCB.

San Mateo Countywide Water Pollution Prevention Program

Projects that add and/or replace over 10,000 square feet of impervious surface must comply with San Mateo County's Provision C.3 of the San Mateo Countywide Water Pollution Prevention Program's (SMCWPPP) amended NPDES permit.

San Carlos General Plan

The Environmental Management and Community Services and Safety Elements in the City's General Plan contains the following hydrology and water quality goals, policies and actions relevant to the proposed project:

Goal EM-5: Assure a high level of domestic water quality, promote water conservation and reduce toxics in run-off, including stormwater and the sanitary sewer system.

Policy EM-5.1: Reduce the discharge of toxic materials into the city's sanitary sewer and stormwater collection system by promoting the use of Best Management Practices (BMPs).

Policy EM-5.4: Encourage the use of drought-tolerant plants and efficient watering techniques for all City landscaping.

Policy EM-5.7: Encourage site designs that manage the quantity and quality of storm water run-off.

Action EM-5.1: Evaluate amending the Zoning Code to maximize permeable surfaces or other water catchment methods for new development as applicable.

Action EM-5.2: Utilize bioswales and other bio-filtration systems as applicable to cleanse run-off before it enters creeks and the San Francisco Bay.

Action EM-5.4: Implement Climate Action Plan measures to provide for water-efficient landscaping.

Action EM-5.10: Implement the NPDES Stormwater Permit and for those properties exempt from the Permit, require a stormwater pollution prevention plan, including use of best management practices, to control erosion and sedimentation during construction.

Goal CSS-2: Reduce hazards associated with flooding or inundation.

Policy CSS-2.4: Minimize impervious surfaces to reduce stormwater runoff and increase flood protection.

Policy CSS-2.12: Incorporate stormwater drainage systems in development projects to effectively control the rate and amount of runoff, so as to prevent increases in downstream flooding potential.

San Carlos Municipal Code

Two chapters of the San Carlos Municipal Code contain regulations pertaining to hydrology and water quality issues relevant to the proposed project, as described below.

Chapter 12.08 – Grading and Excavations

The purpose of this chapter is to provide minimum standards to safeguard life and limb, to protect property and property values, preserve natural beauty, promote public welfare, protect and enhance water quality of watercourses, water bodies and wetlands, and control erosion, sedimentation, and increases in surface runoff and related environmental damage caused by construction-related activities. This chapter requires projects which grade fifty or more cubic yards of material to obtain a grading permit, which includes the preparation of soils report and an erosion and sediment control plan, among other requirements.

Chapter 13.14 – Stormwater Management and Discharge Control

This Chapter, known as the "City of San Carlos Stormwater Management and Discharge Control Ordinance", contains provisions for eliminating non-stormwater discharges to the City's storm drain system; controlling the discharge of spills, dumping, or disposal of materials other than stormwater; and reducing pollutants in stormwater discharges to the maximum extent practicable. These provisions meet the requirements of the CWA and Municipal Regional NPDES permit. The City has the authority to inspect properties to ensure that the provisions of this title are implemented, as per Section 13.14.130.

Chapter 18.18 - Landscaping

Section 18.18.080 Water efficient landscaping and irrigation of this chapter requires that landscaping be designed and plantings selected so that water use is minimized. The estimated total water use (ETWU) of the proposed landscaping on a site must not exceed the maximum applied water allowance (MAWA).

3.10.3 Discussion

Would the project:

- a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

Less Than Significant Impact. Potential water quality impacts during project construction and operation, and project compliance with applicable regulations to protect water quality, are discussed below.

Project Construction

The tank site location was chosen because it is in an area that is already flat and paved and would not require significant grading. Cal Water estimates the project would result in 123 cubic yards of cut and 0.3 cubic yards of fill for the tank ring wall foundation and connecting pipes. Excavation and fill for the tank foundation and connecting pipes could potentially increase the amount of sediment runoff from the site that flows into the City's storm drains. Increased sediment could negatively impact water quality of runoff flowing from the site.

Construction of the project may also include the use of hazardous materials that are potentially harmful to water quality, such as vehicle fuels, fluids, paints, thinners, and other chemicals. Accidents or improper use of these materials could release contaminants to the environment. Additionally, oil and other petroleum products used to maintain and operate construction equipment could be accidentally released.

Construction of the proposed project would disturb less than one acre and, therefore, would not require the preparation of a SWPPP under the statewide Construction General Permit; however, the City of San Carlos requires preparation of a SWPPP even for projects exempt from the permit (San Carlos General Plan Action EM-5.10). Therefore, a SWPPP would be prepared and implemented for the proposed project. The SWPPP would include BMPs to prevent erosion and sedimentation and protect water quality during construction. BMPs could include storm water inlet protection, the use of fiber rolls, sandbags and earthen berms to prevent runoff water from leaving the site, and hydro-seeding of disturbed areas, among other measures. The implementation of the SWPPP would render short-term impacts to water quality from project construction activities a less than significant impact.

Project Operation

No potentially significant impacts to water quality are expected to result from project operation. The proposed project is a new water tank next to an existing water tank on an already paved

site. The project is not expected to generate pollutants that could enter runoff water or groundwater during project operation and maintenance. Total site impervious surface area is currently approximately 6,100 SF and would not change significantly as a result of the project as the project proposes to add only 218 SF of new impervious surface at the site. The project would replace approximately 2,450 SF of existing impervious surface at the site (tank roof and pavement). Thus, the proposed project would not increase the amount of storm water runoff at the site. The proposed project would not create or replace 10,000 square feet or more of impervious surface area and thus would not be required to comply with the low impact development (LID) requirements of Provision C.3 of the Municipal Regional Permit, as administered by the SMCWPPP. However, existing impervious and landscaped areas on the site would continue to provide on-site storm water retention as under existing conditions.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The proposed project involves construction of a water storage tank. The project would not generate demand for water. The amount of impervious surface area on the site would not change significantly after project construction (the project would increase impervious area by 218 square feet compared to existing conditions), and storm water runoff would continue to percolate into groundwater on the previous portions of the site as under existing conditions. The project would not deplete groundwater supplies or interfere with groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

- i) Result in substantial erosion or siltation on- or off-site;**
- ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;**
- iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

Less Than Significant Impact (i-iii). There are no streams or other water features in the project vicinity that would be altered by the project. Cal Water would prepare a SWPPP as required by the City that includes BMPs to prevent erosion and siltation and protect water quality during construction. The amount of impervious surface area on the site would not change significantly after project construction (see Responses a and b, above), and existing pervious areas on the site would continue to provide percolation areas as under existing conditions. Thus, the proposed project would not increase off-site storm water flows or cause potential flooding risks.

iv) Impede or redirect flood flows?

No Impact (iv). The proposed project does not include housing and is not within a 100-year flood hazard area. Thus, the project would not add new structures that could impede or redirect flood flows. As noted, the amount of impervious surface area on the site would not change after project construction, and storm water runoff from the site would not increase or cause potential flooding risks.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. A tsunami is a large tidal wave generated by an earthquake, landslide, or volcanic eruption. Tsunami inundation maps have been developed for the San Francisco Bay area. The

project site is approximately 9.7 miles from the Pacific Ocean and is not within the mapped tsunami inundation area (CEMA *et al.*, 2009). Therefore, it would not be subject to flooding from a tsunami. Seiches are waves that oscillate in enclosed water bodies, such as reservoirs, lakes, ponds, swimming pools, or semi-enclosed bodies of water, such as San Francisco Bay. The project site is over two miles from San Francisco Bay and the Crystal Springs Reservoir and there are no other nearby reservoirs or lakes. Thus, it would not be subject to inundation from a seiche. The project site is not located within a flood hazard, tsunami, or seiche zone. Therefore, there would be no risk to release of pollutants due to project inundation in such a zone.

As discussed in Section 2.3.6, Cal Water has designed the proposed project to safely accommodate the site-specific and regional seismic risks that the new water tank may be subjected to. The tank structure was designed to the latest American Water Works Association (AWWA) seismic standards using the site specific seismic parameters identified in the geotechnical report. In addition, the tank inlet / outlet includes a Flex-tend expansion joint that allows for movement without breakage in the event of a maximum credible earthquake. Thus, the proposed project would not expose people or structures to significant risk of loss, injury or death involving flooding, including flooding as a result of water tank failure.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. As discussed above, the project is the installation of a new water tank at a site that is already developed with a water tank. The project would not significantly increase the amount of impervious area at the site and would be subject to stormwater pollution controls during construction. Therefore, the project would not conflict with the implementation of a water quality control plan or sustainable groundwater management plan.

This page intentionally left blank.

3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 Environmental Setting

The project site is a 1.14-acre (49,847 sf) parcel in the southwest portion of the City, adjacent to Heather School and Heather Dog Park. Other land uses surrounding the site include single-family and multi-family residential housing. The site is known as Station 115 within Cal Water’s infrastructure. The parcel is part of a small ridgeline with the highest point at the center of the site (approximately 540 feet in elevation). Development at the site is concentrated on a flat pad on the eastern portion of the parcel at approximately 515 feet elevation. Beyond the flat pad to the north, east and south, the land slopes steeply downward to the adjacent Melendy Drive, Heather School, and dog park. The western portion of the site (including the upper portion of the ridgeline) is covered in mature vegetation; mostly native species including coast live oaks and a few Monterey pine trees. Melendy Drive adjacent to the site slopes downward from west to east along the parcel’s northern boundary (approximately 545 feet in elevation at Portofino Drive to approximately 430 feet in elevation at Torino Drive).

3.11.2 Regulatory Setting

San Carlos General Plan

The San Carlos General Plan land use designation for the project site is Single Family. This land use designation permits single-family homes at densities of up to six dwelling units per acre.

The following general land use and planning goals and policies from the San Carlos General Plan apply to the proposed project:

Goal LU-9: Protect and enhance all residential neighborhoods.

Policy LU-9.4: Mitigation measures shall be utilized to the greatest extent feasible for neighborhoods surrounding new proposed development.

Goal CSS-7: Ensure adequate public services and high-quality design of public facilities to make San Carlos a safe, enjoyable, and quality community in which to live, work, and shop.

Policy CSS-7.9: Ensure that adequate public services and facilities are planned and constructed to accommodate the population of the city.

Additional goals, policies and actions from the City’s General Plan that are relevant to the project are listed in the sections of this document that they correspond to (for example, aesthetics policies listed in the Aesthetics Section, etc.).

San Carlos Zoning Ordinance

The San Carlos zoning designation for the project site is RS-6 Single-Family. This district is intended for residential densities up to six units per net acre. Dwelling types may include detached single-unit housing, small lot single-unit development, duplexes, townhomes, and second units. This district also allows for uses such as family child care, park and recreation facilities, and civic and institutional uses such as schools and places for community assembly that may be appropriate in a single-family residential neighborhood. "Minor utilities", which includes water tanks, are also permitted in this district. The minimum lot size in this district is 5,000 square feet and the minimum lot width is 40 feet. The maximum building height is 45 feet for public and quasi-public uses. Setback requirements are 15 feet in the front and the rear, 5 feet on the interior side, and 7.5 feet on the street side.

The project site is also within the Hillside Overlay District, which has further restrictions to excavation and grading, and additional development and building design standards that the project must adhere to. The height limit in this district is 35 feet, which is the limit at the project site because the City's Zoning Ordinance states that a project must conform to the more stringent requirement in the event of a conflict between the provisions of the Hillside Overlay District and any underlying base district.

3.11.3 Discussion

Would the project:

a) Physically divide an established community?

No Impact. The proposed project is a new water storage tank adjacent to a similar existing tank. The proposed project does not include new roads or other barriers and would not physically divide an established community.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed project is an allowable use by the land use and zoning designations of the project site (see 3.10.2 Regulatory Setting above). The proposed project conforms to the minimum lot size and building setback requirements of the City's Zoning Ordinance. Chapter 18.04 of the zoning ordinance establishes a 28-foot height limitation. However, height exceptions are provided for in Chapter 18.15.060 which allows a maximum height of 38 feet, provided the project meets specified lot coverage requirements. To qualify for the exception, the water tank must not exceed 25% of the lot area, or 10% of the roof area of all on site structures; whichever is less. Additionally, the tank must be located at least 25 feet from any lot line. The proposed tank meets these requirements and therefore qualifies for a maximum vertical height of 38 feet (10 feet above the standard height limit of 28 feet).

The proposed project would not conflict with the goals, policies or actions of the San Carlos General Plan or with the San Carlos Municipal Code with implementation of the mitigation measures and best management practices contained in this document. No other land use plans or regulations apply to the project.

3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local -general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Environmental Setting

According to the City’s 2030 General Plan, the City of San Carlos does not contain land designated by the California Department of Conservation as having the potential for being a significant source of composite materials or industrial minerals. The project site is already developed with water utility infrastructure and communications facilities, and is surrounded by residential homes, a park, and school.

3.12.2 Discussion

Would the project:

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
- b) **Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

No Impact (a-b). No locally important mineral resources are designated within the City of San Carlos (San Carlos 2015). Thus, proposed project would not affect any known mineral resources of regional or local importance, and therefore, would have no impact on mineral resources.

This page intentionally left blank.

3.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project result in:</i>				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 Environmental Setting

This section describes the fundamentals of noise and the existing noise conditions in the project area, summarized applicable regulations that govern noise, evaluates the noise impacts from the construction and operation of the proposed project features, and identifies best management practices that would be incorporated into the project.

Noise may be defined as loud, unpleasant, or unwanted sound. The frequency (pitch), amplitude (intensity or loudness), and duration of noise all contribute to the effect on a listener, or receptor, and whether the receptor perceives the noise as objectionable, disturbing, or annoying.

The Decibel Scale (dB)

The decibel scale (dB) is a unit of measurement that indicates the relative amplitude of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a tenfold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 more intense, and so on. In general, there is a relationship between the subjective noisiness, or loudness of a sound, and its amplitude, or intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness.

Sound Characterization

There are several methods of characterizing sound. The most common method is the “A-weighted sound level,” or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is typically most sensitive. Thus, most environmental measurements are reported in dBA, meaning decibels on the A-scale.

Human hearing matches the logarithmic A-weighted scale, so that a sound of 60 dBA is perceived as twice as loud as a sound of 50 dBA. In a quiet environment, an increase of 3 dB is usually perceptible, however, in a complex noise environment such as a long a busy street, a noise increase of less than 3 dB is usually not perceptible, and an increase of 5 dB is usually

perceptible. Normal human speech is in the range from 50 to 65 dBA. Generally, as environmental noise exceeds 50 dBA, it becomes intrusive and above 65 dBA noise becomes excessive. Nighttime activities, including sleep, are more sensitive to noise and are considered affected over a range of 40 to 55 dBA. Table 4 lists typical outdoor and indoor noise levels in terms of dBA.

Table 3-2. Typical Outdoor and Indoor Noise Levels		
Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	-110-	Rock Band
Jet flyover at 1,000 feet		
	-100-	
Gas lawn mower at 3 feet		
	-90-	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	-80-	Garbage disposal at 3 feet
Noise urban area, daytime		
Gas lawnmower, 100 feet	-70-	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	-60-	
		Large business office
Quiet urban daytime	-50	Dishwasher next room
Quite urban nighttime	-40-	Theater, large conference room (background)
Quiet suburban nighttime		
	-30-	Library
Quite rural nighttime		Bedroom at night
	-20-	
		Broadcast/recording studio
	-10-	
Lowest threshold of human hearing	-0-	Lowest threshold of human hearing

Source: Caltrans 2009

Sound levels are typically not steady and can vary over a short time period. The equivalent noise level (Leq) is used to represent the average character of the sound over a period of time. The Leq represents the level of steady noise that would have the same acoustical energy as the sum of the time-varying noise measured over a given time period. Leq is useful for evaluating shorter time periods over the course of a day. The most common Leq averaging period is hourly, but Leq can describe any series of noise events over a given time period.

Variable noise levels are values that are exceeded for a portion of the measured time period. Thus, L01 is the level exceeded one percent of the time and L90 is the level exceeded 90

percent of the time. The L90 value usually corresponds to the background sound level at the measurement location.

Noise exposure over the course of an entire day is described by the day/night average sound level, or Ldn, and the community noise equivalent level, or CNEL. Both descriptors represent the 24-hour noise impact on a community. For Ldn, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a nine-hour nighttime period (10 PM to 7 AM) and a 10 dB “penalty” is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45-dBA nighttime sound level would contribute as much to the overall day-night average as a 55-dBA daytime sound level. The CNEL descriptor is similar to Ldn, except that it includes an additional 5 dBA penalty beyond the 10 dBA for sound events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during Ldn and CNEL calculations are intended to account for a receptor’s increased sensitivity to sound levels during quieter nighttime periods.

Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise generating source. Theoretically, the sound level of a point source attenuates, or decreases, by 6 dB with each doubling of distance from a point source. Sound levels are also affected by certain environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and attenuation by barriers. Outdoor noise is also attenuated by the building envelope so that sound levels inside a residence are from 10 to 20 dB less than outside, depending mainly on whether windows are open for ventilation or not.

When more than one point source contributes to the sound pressure level at a receiver point, the overall sound level is determined by combining the contributions of each source. Decibels, however, are logarithmic units and cannot be directly added or subtracted together. Under the dB scale, a doubling of sound energy corresponds to a 3 dB increase in noise levels. For example, if one noise source produces a sound power level of 70 dB, two of the same sources would not produce 140 dB – rather, they would combine to produce 73 dB.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness.

Existing Noise Levels

San Carlos consists of primarily residential areas and open space in the western and central part of the City, and commercial and industrial land uses located east-northeast of El Camino Real in the central and eastern part of the City. Residential areas have a generally low ambient noise level while major arterial roadways and the railroad are both major sources of noise in the eastern portion of the City. Major noise sources in San Carlos are vehicular traffic on major roadways, such as Highway 101 and El Camino Real (State Route 82), railroad operations along the Caltrain corridor and the San Carlos Airport. There are no known stationary sources that make a significant contribution to the community’s noise environment.

The built facilities at the site generate a slight amount of noise from the operation of a single 30-horsepower booster pump. Its location and elevation successfully shield the pump from neighboring residences minimizing any noise contribution that may occur.

On September 7, 2017, MIG, Inc. conducted noise monitoring to evaluate existing ambient noise conditions in the vicinity of the project site. Noise levels were measured with two Larson Davis Model LxT, Type I, sound level meters. The meters' receiving microphone were set to a height of five feet; approximately the same height as a human receptor. One long-term (i.e., 24-hours) measurement (LT-1) was conducted in six-minute intervals from 7:00 AM on Thursday, September 7th to 7:00 AM on September 8th. Conditions during the monitoring were primarily overcast with temperatures ranging from high 60s in the morning to mid-70s in afternoon, with light to calm winds (0-5 mph) from the west in the afternoon. LT-1 was located next to the water tank property fence, approximately 50 feet from Melendy Drive.

In addition to the one long-term measurement, four short-term (ST; i.e., 12-minute) noise measurements were also conducted at the project site. Location ST-1 was located approximately 145 feet northeast of the existing water tank along Melendy Drive near the shared fence with Heather Elementary School; ST-2 was located approximately in front of the apartment building at 2780 Melendy Drive; and ST-3 was located approximately 150 feet west of ST-2 along Melendy Drive. See Figure 14 for the location of where noise monitoring was conducted. Table 3-3 summarizes the results of the noise monitoring. Noise sources observed during the monitoring included vehicles on Melendy Drive, overhead air traffic, operation of an on-site generator at or near the equipment building east of the proposed tank location (see Figure 4), and children playing at Heather Elementary School. See Table 3-3 for a summary of the noise monitoring, and Appendix F for detailed noise monitoring results.

Table 3-3. Existing Ambient Noise Levels (dBA)						
Monitoring Locations	Monitoring Duration	Hourly LEQ Range		Lmin	Lmax	Ldn
		Daytime (7 AM – 10 PM)	Nighttime (10 PM – 7 AM)			
LT-1	24 hours	53.9 – 60.2	37.6 – 52.2	31.8	81.1	58.3
ST-1	12 minutes	55.9 – 59.3	--	34.6	74.3	--
ST-2	12 minutes	58.0 – 58.2	--	33.5	76.1	--
ST-3	12 minutes	60.8 – 64.8	--	33.5		--

As shown in Table 3-3, the results of the monitoring indicate hourly noise levels at the project site and vicinity generally range from approximately 55 to 60 dBA.



Source: ESRI 2014; San Mateo County Planning Department 2017; MIG 2018

- Project Site
- Noise Monitoring Locations

Figure 15 Noise Monitoring Locations

2783 Melendy Drive Water Tank Project

Sensitive Receptors

Sensitive receptors are facilities that house or attract people who are especially sensitive to the effects of the noise environment. Hospitals, schools, convalescent facilities, parks, and residential areas are examples of sensitive receptors. The project site is located in a residential neighborhood and is surrounded by sensitive receptors. Specifically, these receptors include:

- Single and multi-family homes along Melendy Drive, north of the project site;
- Residences on Portofino Road, west of the project site;
- Heather Elementary School, east of the project site; and
- Heather Dog Park, south of the project site.

3.13.2 Regulatory Setting

City of San Carlos General Plan

The City of San Carlos General Plan provides guidance for the control of noise to protect residents, workers, and visitors from potentially adverse noise impacts. Its primary goal is to regulate long-term noise impacts to preserve acceptable noise environments for all types of land uses. The General Plan does not provide a quantitative metric for determining the compatibility of siting industrial or public service land uses – with regard to the existing noise environment – in the City. The General Plan does however establish that exterior noise levels are “normally acceptable” up to:

- 60 Ldn for single-family and multi-family residential units, such as those north and west of the project site;
- 60 Ldn for schools; and
- 65 Ldn for outdoor sports and recreation, neighborhood parks, and playgrounds.

City of San Carlos Municipal Code

The City of San Carlos Municipal Code Chapter 9.30 discusses noise control regulations. Chapter 9.30.070 Section B specifies that construction activities are exempt from noted regulations when limited to Monday through Friday between 8:00 AM and 6:00 PM, and Saturday and Sunday between 9:00 AM and 5:00 PM. No construction noise-related activities are permitted on holidays listed in the Municipal Code. All gasoline-powered construction equipment is required to be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to the systems is permitted (the Building Official shall have the authority to grant exceptions in specific cases).

3.13.3 Discussion

Would the project result in:

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?**

Less Than Significant Impact. Consistent with Chapter 9.30.070 Section B of the Municipal Code, construction of the proposed project would only occur Monday through Friday between 8:00 AM and 6:00 PM, and Saturday and Sunday between 9:00 AM and 5:00 PM. During this time, construction noise is exempt from the Code. Therefore, construction (temporary) noise would not exceed City standards during project development.

Construction activities associated with project development would temporarily increase noise levels in the vicinity of the project. Noise would occur mainly from operation of mobile and

stationary heavy-duty construction equipment (e.g., graders, bulldozers, backhoes, drill rigs). Construction equipment to be used could include loaders, graders, pavers, rollers, bulldozers, a crane, pneumatic tools, and haul trucks. Typical equipment noise levels are presented below in Table 3-4.

Table 3-4. Project Construction Equipment Noise Levels								
Equipment	Noise Level at 50 feet (L _{max}) ^(A)	Percent Usage Factor ^(B)	Predicted Equipment Noise Levels (Leq) ^(C)					
			50 Feet	70 Feet	110 Feet	200 Feet	250 Feet	300 Feet
Backhoe	80	40	76	73	69	64	62	60
Bulldozer	85	40	81	78	74	69	67	65
Compact Roller	80	20	73	70	66	61	59	57
Crane	85	16	77	74	70	65	63	61
Excavator	85	40	81	78	74	69	67	65
Generator	82	50	79	76	72	67	65	63
Pneumatic tools	85	50	82	79	75	70	68	66
Scraper	85	40	82	78	74	70	68	66
Delivery Truck	85	40	81	78	74	69	67	65

Sources: Caltrans 2013 and FHWA 2010.

(A) L_{max} noise levels based on manufacturer's specifications.

(B) Usage factor refers to the amount (percent) of time the equipment produces noise over the time period

(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans, 2013: Leq (hourly) = L_{max} at 50 feet - 20log (D/50) + 10log (UF), where: L_{max} = reference L_{max} from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

As shown in Table 3-4, the worst case Leq and Lmax construction equipment noise levels are predicted to be approximately 82 and 85 dBA, respectively, at 50 feet; however, the magnitude of the project's temporary and periodic increase in ambient noise levels would depend on the nature of the construction activity (i.e., site preparation, demolition, or building construction) and the distance between the construction activity and sensitive outdoor areas.

Per the project plans, some construction equipment would operate at, or immediately adjacent to, the property boundary. During construction of the new driveway, equipment may operate as close as 70 feet from the nearest receptor location, 2780 Melendy Drive. At this distance, operation of a single bulldozer could produce a noise level of approximately 78 dBA. The operation of a bulldozer, roller, and delivery truck could produce a combined noise level of approximately 81 dBA.

The majority of project construction would take place on the interior of the project site, where the new water tank would be erected. These activities would be approximately 110 feet from the nearest sensitive receptor location. At this distance, pneumatic tools would produce a noise level of approximately 75 dBA. The concurrent operation of pneumatic tools, a crane, and delivery truck (which is most likely be the equipment used while the water tank is being bolted together) would produce a combined noise level of approximately 78 dBA.

Although construction activities associated with the proposed project could increase noise levels in the project vicinity by up to 25 dBA, the proposed project would not result in a substantial temporary or periodic noise impact. This is because:

- Noise generated would be intermittent, occurring only a few hours each day (no more than five days a week (Monday through Friday) between the hours of 8:00 AM and 6:00 PM, and Saturday and Sunday between 9:00 AM and 5:00 PM)
- Construction equipment would be mobile, meaning construction activities would not take place at or near the project boundary for the entirety of project construction.
- And construction is anticipated to last no longer than eight months.

Additionally, Cal Water would implement the BMPs identified in Table 2-1 to further reduce the magnitude of noise generated during project construction. Therefore, this impact would be less than significant.

The proposed project would not add any new stationary sources of noise to the existing water tank site, and operation of the proposed project would not substantially alter noise generated at the site. The booster pump's runtime would be increased from approximately 9 hours per day to approximately 22 hours per day. The increase in noise resulting from additional runtime is not considered excessive nor would it conflict with any applicable standards. This is because the booster pump was not observed to be a substantial source of noise at the site during ambient noise monitoring and is well shielded from adjacent receptor locations. Therefore, even with the additional runtime of the booster pump, noise levels at the project site would not be in excess of the standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, permanent operational noise impacts would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Vibration is the movement of particles within a medium or object such as the ground or a building. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared, in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Human response to groundborne vibration is subjective and varies from person to person. Caltrans identifies the threshold criteria in Table 3-5 for human response to and potential damage from continuous or frequent intermittent sources of vibration such as a pile driver. Table 3-6 Table 3-5 lists the estimated vibratory motion for the type of equipment that would likely be used to install the new water tank and construct the new driveway. Estimates are provided for a reference distance of 25 feet, and a distance of 70 feet, which is the estimated distance between the nearest construction activity (i.e., new driveway construction) and the closest residential structure, 2780 Melendy Drive.

Table 3-5. Groundborne Vibration Threshold Criteria		
Land Use Criteria - Human Response	Maximum PPV (inches/second)	Max Lv (dBV)
Workshop – Distinctly feelable vibration	--	90
Office – Feelable vibration	--	84
Residential Day – Barely feelable vibration	--	78
Residential Night – Vibration not likely feelable	--	72
Threshold of human perception	--	65
Construction Vibration Damage Criteria	Maximum PPV (inches/second)	Approximate Lv (dBV)
I. Reinforced concrete steel or timber	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90
Source: Caltrans 2004, FTA 2006		

Table 3-6. Groundborne Vibration Estimates				
Equipment	Reference PPV at 25 feet (inches/second)	Reference Lv at 25 feet (dBV)	Estimated PPV at 70 feet (inches/second)	Estimated Lv at 70 feet (dBV)
Roller	0.21	94	0.068	80.6
Large bulldozer	0.089	87.0	0.029	73.6
Small bulldozer	0.003	58.0	0.010	44.6
Loaded truck	0.076	86.0	0.024	72.6
Jackhammer	0.035	79.0	0.011	65.6
Source: Caltrans 2004, MIG				
Notes: Estimated PPV calculated as: $PPV(D) = PPV_{ref} * (25/D)^{1.1}$ where $PPV(D)$ = Estimated PPV @ Distance, PPV_{ref} = Reference PPV @ 25 feet, D = Distance from equipment to receiver, and 1.1 = ground attenuation rate				
Estimated Lv calculated as: $Lv(D) = Lv(25 \text{ feet}) - 30 \log(D/25)$ where $Lv(D)$ = velocity level in decibels, and v = RMS velocity amplitude @ 25 feet				

As shown in Table 3-6, a roller (80.6dBV) and large bulldozers (73.6 dBV) would generate groundborne vibration that would be barely perceptible at the nearest residential receptor location, 2870 Melendy Drive. This impact is considered less than significant because it would be intermittent (occurring only a few hours each day when equipment was in operation), infrequent (equipment would not operate every day), and at no time would it damage buildings or structures. For these reasons, potential groundborne vibration generated by the project is not considered excessive. This impact would be less than significant.

- c) **For a project located within the vicinity of a private airstrip or 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?**

No Impact. The project site is located within Influence Area “A” of the San Carlos Airport and San Francisco International Airport Land Use Plans (C/CAG 2012 and 2015). There are no private airstrips located within the project vicinity.

Although the project site is located in Influence Area “A” of the San Carlos Airport and San Francisco Airport Land Use Plans, it is not located within any airport-related noise compatibility zone, nor does it involve new, noise-sensitive land uses. The project, therefore, would not expose persons to excessive airport-related noise. No impact would occur.

3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Induce a substantial unplanned 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Environmental Setting

San Carlos is located on the San Francisco Peninsula between Belmont and Redwood City. San Carlos is a community with a strong sense of place and a distinct village feel (San Carlos 2009) It has a population of 28,406 based on the 2010 Census (U.S. Census Bureau 2017).

3.14.2 Discussion

Would the project:

- a) **Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?**

No Impact. The proposed project involves the construction of a 350,000-gallon water tank at a site that already contains a 250,000-gallon water tank and telecommunications equipment. The project constructs water utility facilities and does not involve the construction of any housing. The increase in combined tank storage capacity from 2.5 million gallons to 6 million gallons is designed to address a shortage in emergency storage supplies (see section 2.2). The project, therefore, would not induce population growth in San Carlos or its surrounding communities. Similarly, the proposed project does not remove any existing housing, nor does it displace any people necessitating the construction of replacement housing elsewhere.

This page intentionally left blank.

3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) 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:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Environmental Setting

Public service providers to the project site include the San Carlos Fire Department for fire protection and San Carlos Police Bureau for police services. The nearest fire station (Station 16) is located at 1280 Alameda de las Pulgas, approximately one mile away. The site does not require school, parks, or other public facility services.

3.15.2 Discussion

Would the project:

a) 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:

- i) Fire protection?**
- ii) Police?**
- iii) Schools?**
- iv) Parks?**
- v) Other public facilities?**

No Impact. The proposed project involves the addition of a new 350,000-gallon water tank at a site with an existing water tank and telecommunication facilities. The project would not increase the need or demand for any public service. Rather, the proposed project would address a shortage in water supply within Cal Water’s San Carlos Water System and would help provide

adequate water supply needs in times of emergency. The project would not affect the service ratios, response times, or other performance objectives of any of the public service providers.

3.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 Environmental Setting

The City of San Carlos provides public recreation space with 15 parks totaling 143 acres, two open space lands (Chilton Property and North Crestview), an adult community center facility and a youth center facility. The site does not support uses or facilities that require the use of recreation facilities.

3.16.2 Discussion

Would the project:

- a) **Increase the use of existing neighborhood or regional parks or other recreational facilities such that significant physical deterioration of the facility would occur or be accelerated?**
- b) **Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

No Impact. The proposed project involves installation of a new water tank in the City of San Carlos on a property that is owned and operated by Cal Water. The project would not increase the use of recreational facilities or create new demand for construction or expansion of recreational facilities.

This page intentionally left blank.

3.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.17.1 Environmental Setting

The project site is located on Melendy Drive in San Carlos. Melendy Drive is a two lane, minor arterial roadway road that runs from Crestview Drive in the west to Alameda de las Pulgas in the east. In the vicinity of the project site, Melendy Drive is approximately 35 feet wide and allows for parallel parking on either side of the road for most of its length. Sidewalks are present on both sides of the road. The closest intersections are Melendy Drive / Portofino Drive to the east and Melendy Drive / Torino Drive to the west.

Existing traffic to the project site consists of Cal Water employees and vendors conducting regular checks and routine maintenance on the existing water tank and infrastructure and telecommunication company employees checking the communications equipment on the site. The traffic to the site occurs during working hours and is minimal.

The access drive to the site from Melendy Drive is narrow and steep. Because of the angle of the road, vehicles must approach it from the west, traveling east on Melendy Drive.

3.17.2 Discussion

Would the project:

- a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?**

Less Than Significant Impact. The proposed project would not generate a permanent increase in traffic on the local or regional road network and would therefore not conflict with any plan, ordinance, or policy establishing performance standards for transportation and circulation system.

Project construction would add temporary vehicle trips to Melendy Drive from construction crews, and delivery of equipment and materials. Anticipated heavy equipment includes two dump trucks, a mini-excavator, and a small loader. The project anticipated relatively small amounts of cut and fill (123 cubic yards and 0.3 cubic yards, respectively). The foundation will require approximately 100 cubic yards of concrete and 50 tons of crush rock (aggregate).

Project construction-related vehicle trips would be temporary and intermittent, occurring throughout the day, but also during the AM (7 AM – 9 AM) and PM (4 PM – 6 PM) peak hour time periods. The most intensive construction phase, in terms of traffic trips to and from the site is for earthwork during tank foundation construction. This is anticipated to result in four round trips per day for approximately 1.5 weeks.

The turning radius at the access driveway onto Melendy Drive, is limited and as stated in the Project Description, therefore vehicles entering and exiting the site would be limited to making right turns to avoid dangerous turning movements. As described under discussion d) below, Mitigation Measure TRA-1 would require Cal Water or its contractor to prepare a construction traffic control plan that, in part, prohibits on-street parking and equipment staging, identifies the final haul route for the project, and requires Cal Water or its contractor to avoid potential conflicts with the existing transportation system such as insufficient turning radii, pedestrian conflicts, or truck noise issues by using flagmen, identifying alternate haul routes, or limiting the time when deliveries and hauling activities can occur. The City requires preparation of a Public Safety and Traffic Control Plan be prepared in accordance with manual of uniform traffic control devices (MUTCD) as a standard Condition of Approval (see Table 1 in Section 2.4). With the inclusion of this plan and Mitigation Measure TRA-1 to avoid and reduce conflicts with the transportation system, project impacts would be less than significant

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less Than Significant Impact. The project would not generate new permanent traffic on the local or regional road network as there are no on-site employees associated with tank operations. Operational traffic related to the new tank would be associated with tank maintenance and would not change significantly from existing maintenance activities at the site. Tank operations include an 80-hp on-site emergency back-up generator which is routinely tested once a week for 10 minutes. This would not change as a result of the proposed new tank. The site does not provide housing or employees, nor would maintenance activities significantly change vehicle miles traveled. Therefore, the impact is considered less than significant.

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

Less Than Significant with Mitigation. The proposed project would involve the installation of a new potable water tank at a site with an existing potable water tank. The project would involve minor grading to even out the driveway slope, the installation of a guard rail along the driveway and minor improvements to the sidewalk, to improve safety on the access drive, but would not otherwise change the road network or the site's entrance and connection to the road network. The proposed project would add construction-related vehicle trips to Melendy Drive, from State Route 101 and State Route 280, and connecting streets including but not limited to Holly Street, El Camino Real, San Carlos Avenue, Alameda de Las Pulgas and Brittan Avenue (via State Route 101) and Crestview Drive and Edgewood Road (via State Route 280). Rather, most truck trip activity would occur during the site preparation and excavation stages, as well as when the new foundation is being installed. Foundation installation is anticipated as the most traffic intensive phase of construction and is anticipated to result in four round trips per day for approximately 1.5 weeks. Due to the project site's access driveway geometrics and location near a school, particular care must be taken when entering and exiting the project site. This is considered a potentially significant impact. As such, the City would require Cal Water to implement Mitigation Measure TRA-1 to reduce the impact to a less than significant level.

Impact TRA-1. The proposed project may result in temporary construction truck traffic on Melendy Drive and other roadways in the project vicinity which could adversely affect normal traffic, bicycle, or pedestrian travel patterns.

Mitigation Measure TRA-1. Cal Water and/or its contractor shall, prior to the start of construction activities, prepare and implement a construction traffic control plan that shall:

- Prohibit equipment staging (including haul trucks) on residential streets within the City and identify on- and/or off-site construction staging areas with sufficient capacity to store equipment and materials, including soil stockpiles.
- Identify the final construction truck haul route for project soil import and export activities, potential conflicts from the use of this route, such as turning radii, noise and dust issues, or pedestrian conflicts, and the means to reduce potential conflicts, such as flagmen or limiting deliveries and hauling activity times.
- Prohibit construction worker parking on residential streets within the City and identify on- and/or off-site parking areas with sufficient capacity for the number of construction workers involved in the project.
- Schedule construction-related truck traffic to avoid travel during peak periods of traffic on the surrounding roadways (7:00 – 9:00 AM and 4:00 – 6:00 PM) and should also consider and avoid Heather School pick up and drop off times.
- The traffic control plan shall also address pedestrian safety on the sidewalk near the site driveway at Melendy Drive.

Effectiveness: This measure would provide vehicle and pedestrian safety during construction.

Implementation: Cal Water shall include these measures on all appropriate bid, contract, and engineering and site plan (e.g., building, grading, and improvement plans) documents.

Timing: Prior to the start of construction activities.

Monitoring: The City shall review all appropriate bid, contract, and engineering and site plan documents for inclusion of traffic control measures.

As described in Mitigation Measure TRA-1, Cal Water or its contractor would prepare a construction traffic control plan intended to avoid potential hazards in existing transportation system such as insufficient turning radii by identifying alternate haul routes or limiting the time when deliveries and hauling activities can occur. The project, therefore, would not substantially increase transportation related hazards due to any design feature or incompatible land use and construction activity.

d) Result in inadequate emergency access?

Less Than Significant with Mitigation. The project will include minor improvements to the driveway entrance at Melendy Drive, thereby improving emergency access at the site. The project also includes the installation of a guardrail along the driveway to increase safety. As described under discussion c) above, due to roadway geometrics and the presence of an adjacent school the proposed project has the potential to result in pedestrian and vehicle safety conflicts, and additional construction traffic could also interfere with emergency access if emergency vehicles were to travel down Melendy Drive during a construction-related traffic backup. Mitigation Measure TRA-1 would require Cal Water or its contractor to prepare a construction traffic control plan that, in part, prohibits on-street parking and equipment staging, identifies the final haul route for the project, and requires Cal Water or its contractor to avoid potential conflicts with the existing transportation system such as insufficient turning radii, and pedestrian conflicts by taking into account school drop off and pick up times, using flagmen, identifying alternate haul routes, or limiting the time when deliveries and hauling activities can occur. The implementation of Mitigation Measure TRA-1 would render the project's effects on emergency access a less than significant impact.

This page intentionally left blank.

3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
Cause a substantial adverse change in the significance of a tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.18.1 Environmental Setting

Ethnographic Setting

The land surrounding the project site is in the traditional territory of the Ohlone (or Costanoans as they were known by the Spanish) Native American Tribe. The Ohlone lived in tribelets or nations that were dialect distinct from each other, autonomous, and territorially separated from each other. Each tribelet consisted of one or more permanent villages, with various seasonal temporary encampments located throughout their territory for the gathering of raw material resources, hunting and fishing. The Ohlone lived in extended family units in domed dwellings constructed from tule, grass, wild alfalfa, and ferns. The subsistence practices included the consumption of plant resources such acorns, buckeyes, and seeds that were supplemented with the hunting of elk, deer, grizzly bear, mountain lions, sea lions, whales, and waterfowl. The Costanoan peoples practiced controlled burning on an annual basis throughout their territory as a form of land management to insure plant and animal yields for the coming year (Levy 1987).

The first Europeans to reach the San Francisco area were Spanish explorers in 1769 as part of the Portolá expedition. In 1774, the de Anza expedition had set out to convert the Native American tribes to Christianity, resulting in the establishment of (among others) Mission San Francisco de Asis (Mission Dolores) (founded in 1776) and Mission Santa Clara de Asis (founded in 1777). In this historic period, the Ohlone people were subjugated and absorbed into the mission system that resulted in the loss of their freedom of movement, their culture, and customs (Cabrillo College 2017).

Records Search Results

A record search conducted by the NWIC indicated there are no known archaeological or historic resources within the project site; or within the 0.5-mile radius Area of Potential Effect (APE) surrounding the site. A previous report (S-36205 on the NWIC catalogue) was compiled for a telecommunications facility on the site in 2009 which showed no known cultural resources. The report recommended that archaeological monitoring was not necessary for ground moving activities on the site.

In addition to the NWIC, the Native American Heritage Commission (NAHC) was contacted for a records search of the Sacred Lands Inventory. The results showed no known Tribal Cultural Resources within 0.5 miles of the project site. Additionally, the NAHC recommended that five tribal representatives be contacted as an extension of the Sacred Lands search. These representatives were contacted by certified mail on March 28, 2017 (see Appendix C) and no replies were received from the representatives.

3.18.2 Regulatory Setting

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

Native American Heritage Commission, Public Resources Code Sections 5097.9 – 5097.991

Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to “provide a seamless and consistent state policy to ensure that all California Indian human remains and cultural items be treated with dignity and respect,” the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Assembly Bill 52

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant

effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requests in writing to the lead agency, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

No California Native American Tribes have requested consultation with the City in accordance with Public Resources Code section 21080.3.1(b).

3.18.3 Discussion

Would the project:

- a) **Cause a substantial adverse change in the significance of a tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**
 - i) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?**

Less Than Significant with Mitigation. The CHRIS records search determined there are no known prehistoric or historic cultural resources on the site or within a one-half mile radius surrounding the site. The NAHC search for tribal resources was also negative. The potential for unanticipated discovery is low, although not negligible. Settlement of Native Americans on ridgelines and in elevated positions, such as the project site are not uncommon, and disturbance of unknown remains would be a significant impact.

To safeguard potential archaeological resources from impacts during construction, Mitigation Measure CUL-1 will be implemented (see Section 3.5.3).

- ii) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe?**

Less Than Significant with Mitigation. Under CEQA, a significant resource is one that is listed in a California or local historic register. However, in addition to assessing whether resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the California Register criteria prior to making a finding as to a proposed project's impacts to historical resources (PRC § 21084.1, 20174, 14 CCR § 15064.5(3)).

It is possible for a lead agency to determine that an artifact is considered significant to a local tribe, and thus considered a significant resource under CEQA, even if it would not otherwise be considered significant under CEQA. As such, all Native American tribal finds are to be

considered significant until the lead agency has enough evidence to make a determination of significance

To safeguard finds which could be considered significant at the later discretion of the City, the following mitigation measure will be implemented:

Impact TRIB-1: Project construction could disturb or damage unknown tribal cultural resources resulting in an adverse change in the significance of the tribal resource.

Mitigation Measure TRIB-1: All Native American artifacts and finds suspected to be Native American in nature are to be considered as significant tribal cultural resources until the City of San Carlos has determined otherwise with the consultation of a qualified archaeologist and local tribal representative(s) as directed by the NAHC.

Effectiveness: This measure ensures proper protection of tribal resources should any be discovered during construction.

Implementation: By Cal Water or its contractor.

Timing: During all earth disturbing phases of project construction.

Monitoring: A report will be prepared by a qualified archaeologist detailing all archaeological finds and shall be submitted to the City and the NWIC.

3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.19.1 Environmental Setting

The project site is owned by Cal Water and houses an existing water tank and telecommunication infrastructure. The site contains water storage, pumping equipment, and piping used to provide domestic water supply to the Cal Water Bayshore District (the communities of San Mateo, San Carlos, and South San Francisco) as well as telecommunication facilities (towers, small equipment building, and emergency generator). There is no need for sanitary sewer service to the site. The existing site drainage directs storm water runoff to Melendy Drive.

3.19.2 Discussion

Would the project:

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

Less Than Significant Impact. The proposed project would construct a new water tank at an existing water storage tank site. The project would not require or result in the relocation or construction of new or expanded wastewater treatment, stormwater drainage, electric power, natural gas or telecommunications facilities, and water service in the Bayshore District

communities would be uninterrupted during project construction. The proposed project is designed to provide domestic water supply to meet peaking, fire suppression, and emergency supply needs. Although the new water tank would increase overall water storage capacity in the system, the added storage would go toward serving existing, established communities and would not induce population growth. The project would result in a long-term benefit to fire flows by improving the overall efficiency, supply, and reliability of Cal Water Bayshore District's water service. The project does not have connections to any septic or other sewer systems and would not generate wastewater that would require new or expanded facilities.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. The proposed project improves water storage capacity at an existing water facility. The project would not create new demand for water and does not require new or expanded water entitlements. The improvements to the site are designed to satisfy a water storage deficit, improve system reliability, and provide emergency supplies for planned and unplanned outages in the system and are not proposed to accommodate future growth.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed project improves water storage capacity at an existing water facility. The project does not involve generation of wastewater.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Per the requirements of Chapter 8.05 of the City's Municipal Code, Recycling and Diversion of Construction and Demolition Debris, Cal Water would salvage and/or recycle construction and demolition debris and excavated soil to the extent feasible, but some material would require disposal at an off-site location. Cal Water would dispose construction and demolition materials at an appropriate landfill facility and would ensure the removal of these materials do not pose a risk to human health and the environment. Once construction is complete, the project would not generate solid waste or conflict with solid waste regulations.

3.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Is the project located near state responsibility areas or lands classified as very high fire hazard severity zones?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.20.1 Environmental Setting

The California Department of Forestry and Fire Protection (Cal Fire) maps areas of significant fire hazards in the state. These areas are identified based on weather, terrain, fuels, and other factors. According to Cal Fire, Very High Fire Severity Zones (VHFSZs) are located on the hillsides west of Alameda de las Pulgas. Steep canyons with thick stands of brush reaching up to 6 feet high make the area vulnerable to potential fires. Fire danger is particularly severe during the summer and fall when vegetation is dry and winds blow from the north and northeast. According to the City’s General Plan, the last hillside fire occurrences were in 1971 and 1976. At the time of the fires, no residential development existed in the fire areas. The area has subsequently developed and these structures may be at risk from future fires. The project is located within the Very High Fire Hazard Severity Zone(VHFHSZ)(CalFire 2008).

3.20.2 Regulatory Setting

State

California Department of Forestry and Fire Protection

The Cal Fire has mapped fire threat potential throughout California. Cal Fire ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat and moderate, high, and very high fire threat. Additionally, Cal Fire produced a 2010 Strategic Fire Plan for California that contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments. Cal Fire's Office of the State Fire Marshal provides oversight of enforcement of the California Fire Code as well as overseeing hazardous liquid pipeline safety.

Cal Fire also designates land as either a State or Local Responsibility Area (SRA or LRA) to designate who has financial responsibility for the prevention and suppression of wildfire. The western portion of the City, where the project site is located is within an LRA and within a VHFHSZ (CalFire 2008). Therefore, the City of San Carlos has the responsibility for fighting wildland fires with the City limits.

California Fire Code

The California Fire Code (CFC) is Part 9 of Title 24. Updated every three years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, fire hydrant locations and distribution, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas. The SCFD would implement CFC requirements within San Carlos.

Regional

San Mateo County Office of Emergency Services, Emergency Operations Plan (EOP)

The San Mateo County Office of Emergency Services has adopted an Emergency Operations Plan (EOP), which identifies emergency response programs related to fire and rescue. This Emergency Operations Plan (EOP) established policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within the San Mateo County Operational Area (SMOA). It provides information on the county emergency management structure of how and when the Emergency Operations Center (EOC) staff is activated. Emergency Function 4 (EF 4) of the EOP addresses fire and rescue.

The primary function of EF 4 is to respond to persons or property at risk of harm caused by fire and fire-related accidents during disasters. However, EF 4 may be called on to assist other EFs in response to evacuations, search and rescue, and similar endeavors. The EF 4 document designates Cal Fire San Mateo County as the coordinating and primary agency for fire emergencies. Operational Area California Fire Service and Rescue Emergency Mutual Aid Coordinator (FMC) are listed as supporting agencies.

Local

San Carlos/Redwood City Fire Department

The San Carlos Fire Department, with services provided by Redwood City Fire Department, provides fire and emergency medical services for San Carlos. The City has two fire stations: Fire Station No. 13, located at 525 Laurel Street, and Fire Station No. 16, located at 1280 Alameda de las Pulgas. Services include fire prevention, operations, communications, emergency services, and paramedic services. The SCFD usually responds to an emergency scene in less than 4 minutes and can start delivering life-saving care upon arrival.

San Carlos General Plan

The following policies in the San Carlos General Plan regulate potential wildfire risks in the project area:

Policy LU-9.17 Require exterior building materials to be non-combustible in areas of potential high fire hazard.

Policy CSS-3.5 Preserve the local government agreement with California Department of Forestry and Fire Protection (CAL FIRE) for responses in the Mutual Threat Zone (MTZ) within the Wildland Urban Interface Areas of the city. Continue to provide BSCFD equipment and personnel under the mutual aid agreement, with the State of California Office of Emergency Service (OES) Region II. This continued “reverse support” enables the City of San Carlos to receive “no cost” statewide mutual aid in the event of a declared large-scale emergency.

Policy CSS-3.6 Continue to enforce building code regulations that minimize fire hazards in areas subject to a very high fire severity zone (VHFSZ) risk west of Alameda de las Pulgas and prohibit any structural development in areas where wildland urban fire hazards cannot be mitigated under an agreement addressing alternate means of protection and materials agreement.

Policy CSS-3.8 Provide adequate access for fire and emergency service vehicles to new development in hillside areas, as per the International Fire Code and the Urban Wildland Interface Code.

Policy CSS-3.9 Support “early review” of proposed development by the Belmont-San Carlos Fire Department and institute impact fees to ensure adequate all-risk fire equipment for the community.

Policy CSS-3.10 Continue to require all new development to provide all necessary water service, fire hydrants and road improvements consistent with City standards and the California Fire Code.

Policy CSS-3.11 Ensure that in existing developed areas within the city there is an acceptable level of fire safety and emergency medical/paramedic services.

Policy CSS-3.12 Incorporate drought-resistant and fire-resistant plants in capital improvement projects in areas that are subject to wildland fires.

3.20.3 Discussion

Would the project:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?**

Less Than Significant Impact. Implementation of the project would not adversely impact the implementation of an emergency response or emergency evacuation plan. The proposed project improves water storage capacity at an existing water facility and would not result in the assembly of large numbers of people in High or VHFHSZ zones. Despite the project’s location in a VHFHSZ, construction would occur within existing development and in close proximity to fire protection services. Therefore, the proposed project would not create barriers to evacuation plans, adversely impact the system, or expose people or structures to a significant risk of loss, injury or death involving wildland fires. The impact is less than significant.

- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

Less than Significant Impact. The project would not result in any kind of occupancy of the site and therefor would not expose occupants/people to wildfire pollutant concentrations or hazard from the uncontrolled spread of a wildfire.

The foothills of San Carlos primarily experience prevailing winds from the northwest (San Carlos 2009) which could exacerbate wildfire risks. Although the project is located in an urbanized area and is surrounded by residential development, a park, and a school, it is within a VHFHSZ. Construction of the proposed project would not exacerbate existing wildfire risks because the project would not affect the parcel slope or introduce activities or features that would contribute to overall wildfire risk. However, the project proposes additional landscaping that could exacerbate or change wildfire behavior. Some species proposed in the Landscaping Plan are on the Native Fire-Resistant Plant List Species of San Mateo County (2019) including toyon, coast live oak, and bearberry manzanita. The plan includes deodar cedars which are not recommended for firescaping, however, the primary purpose of the landscaping plan is to provide visual screening. Despite this, the proposed project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire because the project does not support buildings for occupancy (the site is un-manned) and the proposed tank is made of steel, therefore, the impact is considered less than significant.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact. The project does not require the installation of associated infrastructure such as new roads, fuel breaks, emergency water sources, power lines or other utilities. The proposed project would install a new water storage tank that would increase water storage capacity in the area, thereby improving the infrastructure needed to respond to emergencies including fires. Although located within a VHFHSZ, the proposed project does not introduce new structures or people to risk of loss, injury, or death from wildland fires. Rather, the proposed project would improve Cal Water's overall water system capabilities and ability to provide water in times of emergency, such as an earthquake or a wildland fire, or other planned or unplanned outages. Therefore, the proposed project would have a less than significant impact on fire risk.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. The VHFHSZ in the southwestern section of the City is located in steep, rugged terrain which could experience flooding, debris flows, and landslides as a result of post-fire slope instability. The proposed project is located in this VHFHSZ. However, the project is located on a rocky ridgeline and is not downslope from a steep hillside. Slopes to the north and west of the project site parcel are developed with residential housing. The project will be constructed on an already-developed and paved portion of the site without significant changes to on-site runoff or drainage. Furthermore, the project site is not occupied (no on-site housing or permanent employees) meaning the project would not expose people to significant fire-related risks as a result of post-fire slope instability or drainage changes. The project would satisfy a water storage deficit and improve system reliability and emergency water supply in the area. Therefore, implementation of the project would have a less than significant impact on fire risk.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means the incremental effects of a project are considerable when viewed in connection with the efforts of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.21.1 Discussion

- a) **Does the project have the potential to substantially 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, substantially 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?**

Less Than Significant with Mitigation. There are no special-status species, wetlands, or sensitive habitats on or near the project site; therefore, the project would not impact such species or habitats. Project construction activity could potentially impact nesting birds if it were to occur within the nesting season (February 1st to August 31st). Pre-construction surveys and establishing buffer zones around nests as identified in Mitigation Measures BIO-1A and BIO-1B, would avoid potential impacts. The project site does not contain recorded archaeological or historic resources, and the incorporation of Mitigation Measures CUL-1, CUL-2, and GEO-1, would avoid and/or reduce potential impacts to unrecorded cultural and tribal cultural resources to a less than significant level. Therefore, the proposed project would not 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means the incremental effects of a project are considerable when viewed in connection with the efforts of past projects, the effects of other current projects, and the effects of probable future projects)?**

Less Than Significant Impact. The project would not have environmental effects that are individually limited, but cumulatively considerable. The project involves a new water tank and associated features on a site with an existing water tank and does not propose new uses. There are no other known projects in the project area that could be constructed at the same time as the proposed project. As noted in section 3.3.3, the proposed project would not result in cumulative considerable emissions of criteria air pollutants and would implement Mitigation Measure AIR-1 to reduce dust emissions. Similarly, as noted in section 3.17.2, Cal Water would implement Mitigation Measure TRA-1 to control potential traffic disruptions and safety issues resulting from construction truck traffic. This measure would render potential cumulative construction traffic impacts less than significant. The project would not result in any other impact of sufficient magnitude such that it would constitute a cumulatively considerable contribution to adverse environmental effects.

The project would not result in long-term operational impacts that could combine with the impacts of another project.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Less Than Significant with Mitigation. The project could result in adverse dust (air quality), noise, and vehicle safety impacts to neighborhood residents during project construction; however, design features, BMPs, and mitigation measures (Mitigation Measures AIR-1, TRA-1) incorporated into the project would be implemented to reduce these potential adverse effects on human beings to less than significant levels.

Chapter 4. References

- Association of Bay Area Governments (ABAG). 2017. ABAG Map Services: Existing Landslide Areas and Rainfall Induced Landslide Areas. Accessed July 12 and 18, 2017. Available at <http://gis.abag.ca.gov/>.
- Bay Area Air Quality Management District (BAAQMD). 2017a. *Air Quality Standards and Attainment Status*. Updated January 5, 2017. Accessed January 3, 2018. Available at <http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status>.
- _____. 2017b. Stationary Source Screening Analysis Tool: San Mateo 2012. Accessed December 20, 2017. Available at <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools>.
- _____. 2017c. *Spare the Air – Cool the Climate. Final 2017 Clean Air Plan*. April 19, 2017.
- _____. 2017d. *California Environmental Quality Act (CEQA) Air Quality Guidelines*. May 2017.
- Cabrillo College. 2017. Missionization. Accessed July 5, 2017. Available at https://www.cabrillo.edu/~crsmith/anth6_missions.html.
- California Air Resources Board (CARB). 2007. *Staff Report California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*. Sacramento, CA. November 16, 2007. Accessed February 28, 2019. Available at http://www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf.
- _____. 2009. *Appendix A to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (17 CCR §95100-95133)*. January 1, 2009. Accessed February 28, 2019. Available at <http://www.arb.ca.gov/regact/2007/ghg2007/frofinal.pdf>.
- _____. 2011. Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document. Released August 19, 2011. Sacramento, CA. Approved August 24, 2011. Accessed February 28, 2019. Available at <http://www.arb.ca.gov/cc/scopingplan/fed.htm>.
- _____. 2014. *First Update to the Climate Change Scoping Plan*. Sacramento, CA. May 2014.
- _____. 2017. *California's 2017 Climate Change Scoping Plan*. Sacramento, CA. December 14, 2017.
- California Department of Conservation (CDC). 2012. San Mateo County Williamson Act Map Fiscal Year 2006/2007. Accessed August 1, 2017. Available at ftp://ftp.consrv.ca.gov/pub/dlrp/wa/sanmateo_06_07_WA.pdf.
- _____. 2014. San Mateo County Important Farmland Map. Accessed August 1, 2017. Available at <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/smt12.pdf>.
- California Department of Fish and Game. 1998 Fish and Game Commission. 1998. Fish and Game Code. January 1, 1998.
- California Department of Fish and Wildlife (CDFW). 2017. California Natural Diversity Database. RareFind 5. Accessed July 5, 2017.
- California Department of Forestry and Fire Protection (CalFire). 2008. San Mateo County Very High Fire Hazard Severity Zone in Local Response Area. November 24. Accessed on February 26, 2019. Available at http://frap.fire.ca.gov/webdata/maps/san_mateo/fhszl_map.41.pdf.
- California Department of Toxic Substances Control. 2016. EnviroStor Cortese List. http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Web accessed October 23, 2018.

- California Department of Transportation (Caltrans). 2004. *Transportation- and Construction- Induced Vibration Guidance Manual*. Prepared by Jones and Stokes for Caltrans Noise, Vibration, and Hazardous Waste Management Office. Sacramento, CA. June 2004.
- _____. 2013. *Technical Noise Supplement*. Caltrans Division of Environmental Analysis. Sacramento, Ca. September 2013.
- _____. 2011. Scenic Highway Program. Updated September 7, 2011. Accessed October 23, 2018. Available at http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm.
- California Emergency Management Agency (CEMA), California Geological Society (CGS), and University of Southern California. 2009. Tsunami Inundation Map for Emergency Planning: San Francisco South Quadrangle (Pacific Coast). June 15, 2009. Accessed July 18, 2017. Available at http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SanMateo/Documents/Tsunami_Inundation_SouthSanFrancisco_PacificCoast_Quad_SanMateo.pdf.
- California Energy Commission (CEC). 2015. 2015 Integrated Energy Policy Report. Sacramento, CA. 2015.
- _____. 2019a. "Electricity Consumption by County." *Electricity Consumption by County*. CEC, Energy Consumption Database. n.d. Accessed February 5, 2019. Available at <http://ecdms.energy.ca.gov/elecbycounty.aspx>.
- _____. 2019b. "Gas Consumption by County." *Gas Consumption by County*. CEC, Energy Consumption Database. n.d. Accessed February 5, 2019. Available at <http://ecdms.energy.ca.gov/gasbycounty.aspx>.
- California Environmental Protection Agency (Cal EPA). 2017. Cortese List Data Resources. Accessed July 13, 2017. Available at <http://calepa.ca.gov/sitecleanup/corteselist/>.
- California Native Plant Society (CNPS). 2017. Inventory of Rare and Endangered Plants (online edition, 8th edition). California Native Plant Society, Sacramento. Accessed July 5, 2017. Available at <http://cnps.org/inventory>.
- California State Parks, Office of Historic Preservation. 2017. Accessed July 5, 2017. Available at <http://ohp.parks.ca.gov/>.
- City/Council Association of Governments of San Mateo County (C/CAG). 2012. Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport. Redwood City, CA. July 2012.
- _____. 2015. Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. Redwood City, CA. October 2015.
- City of Redwood City. 2019. About the Department. Fire Department. Accessed February 14, 2019. Available at <https://www.redwoodcity.org/departments/fire-department/about-the-department>.
- City of San Carlos. 2006. Palo Alto Medical Foundation – San Carlos Center Draft EIR. 2006. Accessed July 5, 2017. Available at <http://www.cityofsancarlos.org/civicax/filebank/blobdload.aspx?blobid=2693>.
- _____. 2009. San Carlos 2030 General Plan. Adopted October 12, 2009.
- _____. 2017a. History of San Carlos. Accessed July 5, 2017. Available at http://www.cityofsancarlos.org/residents/about/history_of_san_carlos/default.asp.
- _____. 2017b. San Carlos Municipal Code.

- _____. 2019a. Municipal Code. Accessed February 22, 2019. Available at <https://www.codepublishing.com/CA/SanCarlos/#!/SanCarlos08/SanCarlos0805.html#8.05.040>.
- _____. 2019b. San Carlos/Redwood City Fire Department. Accessed February 14, 2019. Available at <https://www.cityofsancarlos.org/government/departments/fire>.
- Cotton, Shires and Associates (CSA). 2017. Geologic and Geotechnical Review – Proposed Water Storage Tank Station 115, 2783 Melendy Drive, San Carlos CA. August 18.
- Federal Emergency Management Agency (FEMA). 2012. Flood Insurance Rate Map: San Mateo County, California and Unincorporated Areas. Map Number 06081C0282E. October 16th.
- Fire Safe San Mateo. 2019. Communities. Accessed February 14, 2019. Available at <https://firesafesanmarateo.org/resources/communities>.
- Kielty Arborist Services. 2014. Site: Station 115 Melendy, San Carlos, CA. August 15.
- Krazan & Associates, Inc. 2014, Updated Geotechnical Investigation, Proposed Water Storage Tank, MP Station 115.
- _____. 2017. Updated Geotechnical Engineering Investigation, Proposed Water Storage Tank, Mid Peninsula Station 115, 2783 Melendy Road, San Carlos, California. Project No. 142-14011. June 17, 2014. Updated January 24, 2017.
- Levy, Richard. 1987. Costanoan in R.F. Heizer (ed.) Handbook of North American Indians. Vol. 8: California: 485-495. Washington D.C. Smithsonian Institute.
- Lithonia Lighting. 2017. “D-Series Size 1 LED Flood Luminaire.”
- Menlo Park Historical Association. 2017. Accessed July 5, 2017. Available at <https://sites.google.com/site/mphistorical/home/rancho-de-las-pulgas>
- National Oceanic and Atmospheric Administration (NOAA). 2017. “Mauna Loa CO₂ Monthly Mean Data.” *Trends in Atmospheric Carbon Dioxide*. NOAA, Earth System Research Laboratory, Global Monitoring Division. December 5, 2017. Accessed December 21, 2017. Available at <http://www.esrl.noaa.gov/gmd/ccgg/trends/>.
- National Park Service. 2017. National Register of Historic Places. Accessed July 5, 2017. Available at <https://www.nps.gov/nR/index.htm>.
- Native American Heritage Commission (NAHC). 2017. Sacred Lands File Search, March 22, 2017.
- Northwest Information Center (NWIC), Sonoma State University. 2017. California Historical Resources Information System - Record Search, File No. 16-2020. June 22, 2017.
- Oakland Museum of California (OMCA). 2005. Creek & Watershed Map of San Mateo & Vicinity. By Anne C. Tillery & Janet M. Sowers. Accessed July 18, 2017. Available at: <http://explore.museumca.org/creeks/MapSMt.html>.
- Regional Water Quality Control Board. 2009. California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit. Order R2-2009-0074. NDPEs Permit No. CAS612008.
- San Francisco Bay Area Regional Water Quality Control Board (RWQCB). 2013. *Water Quality Control Plan for San Francisco Bay Area*. Accessed July 18, 2017. Available at http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml.
- San Mateo County. 2005. Dam Inundation Areas- San Mateo County. Accessed July 18, 2017. Available at http://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Dam_Failure_Inundation.pdf.

- _____. 2019. Native Fire Resistant Plant Species of San Mateo County. Accessed February 28, 2019. Available at: <https://www.firesafesanmarateo.org/resources/defensible-space/fire-resistant-plant-list>.
- San Mateo County History Museum. 2017. Person Record: Phelps, Timothy Guy. Accessed July 5, 2017. Available at <http://historysmc.pastperfectonline.com/byperson?keyword=Phelps%2C+Timothy+Guy>.
- San Mateo County, Office of Emergency Services. 2015. San Mateo Emergency Operations Plan: Basic Plan. May 22.
- _____. 2015. San Mateo Emergency Operations Plan: Emergency Function (EF) 4 Fire and Rescue. March 31.
- State Water Resources Control Board. 2012. Final 2012 California Integrated Report (Clean Water Act Section 303(d) List / 305 (1) Report). Accessed July 18, 2017. Available at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml.
- _____. 2018. GeoTracker website. Accessed October 23, 2018. Available at <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=san+carlos>.
- Sperlings. 2019. Best Places – San Carlos. Accessed February 28, 2019. Available at https://www.bestplaces.net/climate/city/california/san_carlos
- U.S. Federal Highway Administration (FHWA). 2010. “Construction Noise Handbook, Chapter 9 Construction Equipment Noise Levels and Ranges.” *U.S. Department of Transportation FHWA*. May 20, 2010. Accessed January 5, 2011. Available at http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm.
- U.S. Federal Transit Administration (FTA). 2006. *Transit Noise and Vibration Assessment*. FTA-VA-90-1003-06. Washington, DC. May 2006.
- U.S. Census Bureau. 2010. Census 2010. Accessed July 5, 2017. Available at <https://www.census.gov/2010census/>.
- _____. 2017. Quick Facts – City of San Carlos. Available at: <https://www.census.gov/quickfacts/fact/table/sancarloscitycalifornia/LND110210>. Accessed on August 1, 2017.
- U.S. Fish and Wildlife (USFWS). 2017. National Wetlands Inventory: Wetlands Mapper. Accessed July 5, 2016. Available at: <http://www.fws.gov/wetlands/Data/Mapper.html>.
- _____. 2017. Environmental Conservation Online System: Critical Habitat Mapper. Accessed July 5, 2017. Available at: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>.

Chapter 5. List of Preparers

This report was prepared under the direction and supervision of the City of San Carlos. The following individuals were involved in the preparation of this report:

City of San Carlos

Lisa Porras, Principal Planner
Kelly Beggs, Associate Planner
Andrea Mardesich, Associate Planner

600 Elm Street
San Carlos, CA 94070

MIG, Inc.

Barbara Beard, Senior Project Manager
Christina Lau, Project Manager
Phillip Gleason, Analyst
Megan Kalyankar, Biologist
Robert Templar, Archaeologist
Becca Dannels, Analyst and GIS Analyst
Shelby Kendrick, Analyst

2635 North First Street, Suite 149
San Jose, CA 95134

This page intentionally left blank.