Randy Lane Drainage Improvement Project

Initial Study / Mitigated Negative Declaration

Prepared for:

City of San Pablo Public Works / Engineering Department
13831 San Pablo Avenue, Building 3
San Pablo, CA 94806

Prepared by:

North State Resources, Inc.
2020 L Street, Suite 240
Sacramento, CA 95811

May 2017

PROJECT INFORMATION

1. Project Title:	Randy Lane Drainage Improvement Project
2. Lead Agency Name and Address:	City of San Pablo Public Works / Engineering Department 13831 San Pablo Avenue, Building 3 San Pablo, CA 94806
3. Contact Person and Phone Number:	Ronalyn Nonato, Assistant Engineer (510) 215-3065
4. Project Location:	Randy Lane and Giant Road between the bridge over San Pablo Creek just south of Parr Road/Road 20 in San Pablo, Contra Costa County, California.
5. Description of Project:	The City of San Pablo (City) is proposing to install a new storm drain and outfall into San Pablo Creek to alleviate flooding concerns along Randy Lane in the western portion of San Pablo. The new storm drain would consist of an 18-inch diameter pipe along Randy Lane and a 24-inch diameter pipe along Giant Road from Randy Lane to San Pablo Creek. The total pipe length would be approximately 570 feet. Trenches would be excavated up to 9 feet in depth for new storm drain pipes, and excavations for new storm drain manholes would be up to 10 feet deep. The outfall would be installed in the concrete portion of the bridge wall along the creek bank and would be 24 inches in diameter. An existing storm drain would be capped and abandoned in place under Randy Lane and private properties, and the existing outfall to the creek upstream of the bridge would be abandoned in place.
6. General Plan Designation:	Low Density Residential (LDR), Light Industrial (I)
7. Zoning:	Single-Family Residential District (R1), Industrial Mixed Use District (IMU), Light Industrial (M-2, City of Richmond) and City Street Right of Way

8. Surrounding Land Uses and Setting: Low-density residential on all sides of Randy Lane. Light-industrial warehouse/business (auto repair shop) between San Pablo Creek and Randy Lane on east side of Giant Road. Burlington Northern Railroad tracks parallel to west side of Giant Road, and Light Industrial businesses west of railroad tracks in the city of Richmond.

9. Other Public Agencies Whose Approval May Be Required:

- Regional Water Quality Control Board
- U.S. Army Corps of Engineers, San Francisco District, Readiness Branch and Regulatory Branch
- California Department of Fish and Wildlife
- Contra Costa County Flood Control District

Figures

Tables

Acronyms and Abbreviations

AB 52	Assembly Bill 52
APN	Assessor's Parcel Number
BAAQMD	Bay Area Air Quality Management District
BFE	base flood elevation
bgs	below ground surface
BMPs	best management practices
CCCFCD	Contra Costa County Flood Control District
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
City	City of San Pablo
CMP	corrugated metal pipe
CO	carbon monoxide
CRHR	California Register of Historical Resources
dBA	DeciBels, Adjusted
DI	drop inlet
DPS	Distinct Population Segment
EBMUD	East Bay Municipal Utility District
ESL	Environmental Screening Level
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	greenhouse gas
I	Light Industrial
IMU	Industrial Mixed Use District
IS/MND	Initial Study / Mitigated Negative Declaration
LDR	Low Density Residential
M-2	Light Industrial
msl	mean sea level
NOx	nitrogen oxide
NRHP	National Register of Historic Places
NSR	North State Resources, Inc.
NWIC	Northwest Information Center
proposed project	Randy Lane Drainage Improvement Project
PRC	California public resources code
PVC	polyvinyl chloride

R1	Single-Family Residential District
RCP	reinforced concrete pipe
ROG	reactive organic compounds
RWQCB	Regional Water Quality Control Board
SD	storm drain
SPDPW	City of San Pablo Public Works / Engineering Department
SSHP	Site Safety and Health Plan
TCE	temporary construction easement
TCR	Tribal Cultural Resources
ug/L	micrograms per liter
ug/M^3	micrograms per cubic meter
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VOCs	volatile organic compounds

Chapter 1. Introduction

1.1 Purpose of this Document

The City of San Pablo Public Works / Engineering Department (SPDPW) is proposing to install a new outfall at San Pablo Creek through the Giant Road bridge wall south of Parr Blvd, a new 24-inch polyvinyl chloride (PVC) storm drain (SD) pipe from the new outfall to a new SD manhole on Giant Road approximately 90 feet south the outfall, and a new 18-inch PVC SD pipe from that new SD manhole south approximately 360 feet along the eastern edge of Giant Road to another new SD manhole at the intersection of Randy Lane. From this new SD manhole at the intersection of Giant Road and Randy Lane, a new section of 18-inch PVC SD pipe will be installed approximately 120 feet east to an existing drop inlet (DI) on Randy Lane. The existing 15-inch reinforced concrete pipe (RCP), 14-inch corrugated metal pipe (CMP) and outfall will be abandoned in-place. These activities are collectively referred to as the Randy Lane Drainage Improvement Project (proposed project) designed to resolve the minor to severe flooding issues during the rainy season occurring at the DI located on Randy Lane near Giant Road intersection, as recommended in the City's Drainage Analysis Technical Memorandum (Water Works Engineers 2016). This Initial Study / Mitigated Negative Declaration (IS/MND) identifies the potential environmental impacts of the proposed project to determine whether the project may have a significant effect on the environment and identifies mitigation measures, where applicable, to avoid significant effects. This IS/MND has been prepared pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines (14 California Code of Regulations 1500 et seq.), which require that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. SPDPW is a public agency with discretionary authority over the project and is the Lead Agency under CEQA.

1.2 Document Organization

The remainder of this document is organized into the following sections:

- **Section 2 Project Description** – Describes the proposed project;
- **Section 3 Initial Study Checklist** – Describes the environmental setting and analyzes impacts, with mitigation measures identified where appropriate;
- **Section 4 Determination** – Presents SPDPW's findings pursuant to CEQA; and
- **Section 5 Report Preparation and References** – Identifies personnel responsible for preparation of this document and lists references cited throughout the document.
- **Appendix A. Mitigation Monitoring and Reporting Plan –** Presents a mitigation monitoring and reporting plan for mitigation measures required to reduce potentially significant impacts to less-than-significant levels.

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Chapter 2. Project Description

2.1 Location

The project area is located in a mixed residential/light industrial neighborhood in urban western San Pablo in Contra Costa County. It is on the *Richmond, California* U.S. Geological Survey 7.5-minute quadrangle in Township 1N, Range 5W (Figure 1). The proposed SD pipe would begin at the DI in front of the second house from the end of the street and follow Randy Lane approximately 120 feet west to a proposed SD manhole in the northbound lane of Giant Road. The pipeline would then turn north and extend under the northbound lane of Giant Road for about 360 feet before turning slightly right (northeast) off the street and on to Assessor's Parcel Number (APN) 011-010-075 and extending another 90 feet to the proposed outfall in the southern bank of San Pablo Creek just east of the bridge. Staging areas would be determined by coordination between the construction contractor and the City or private landowners, but are presumed to be located in previously disturbed areas along the sides of the roads. The extent of the project area for purposes of the analysis contained in this IS/MND is limited to the road width and sidewalks along northbound Giant Road and the western half of Randy Lane and the area of San Pablo Creek just east of the Giant Road bridge (Figure 2).

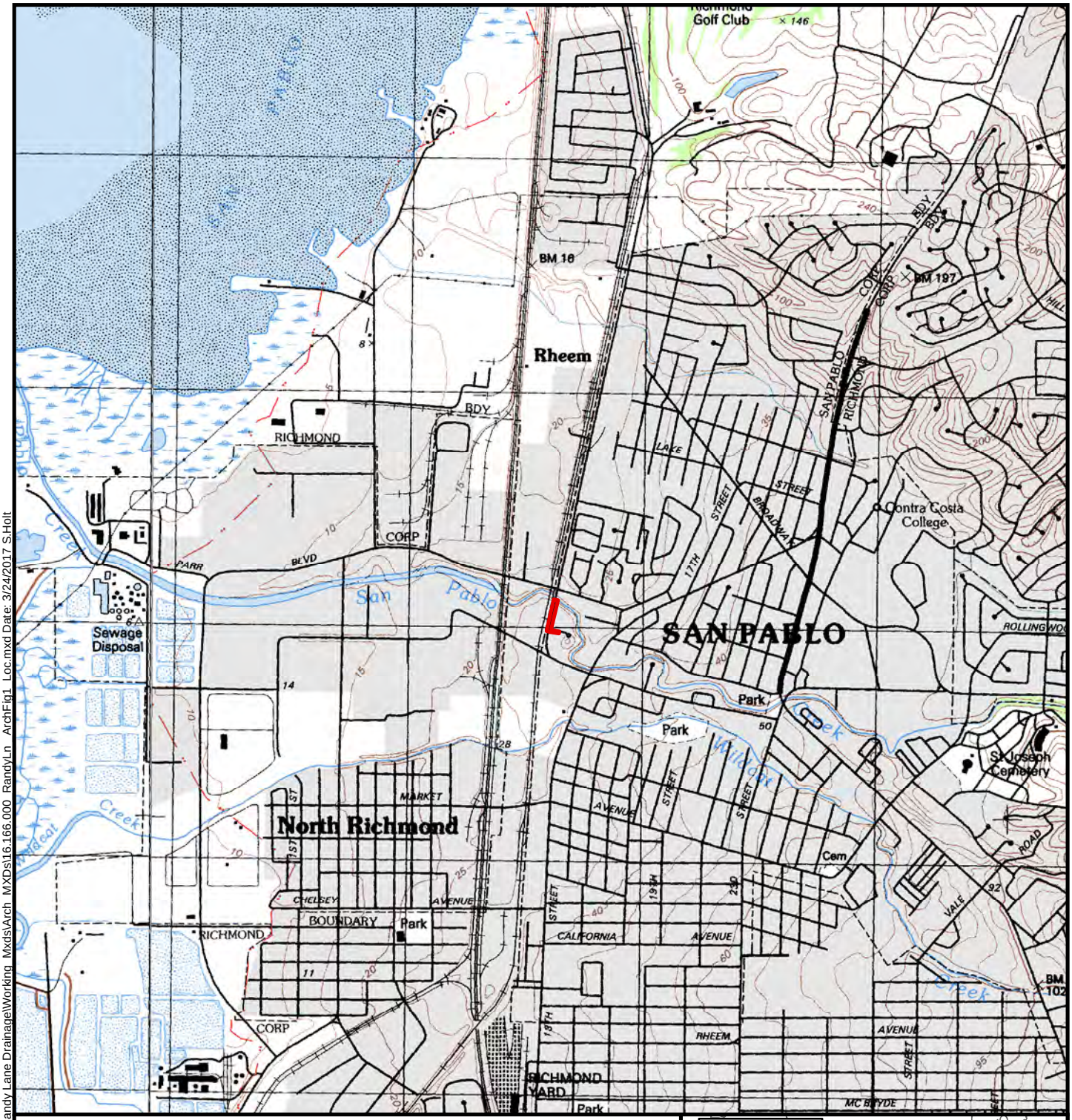
2.2 Environmental Setting

The project area is on the northeastern side of San Francisco Bay approximately one mile east of San Pablo strait, and approximately 1.5 miles west of Interstate 80. The city of Richmond's boundary borders the western side of Giant Road in the project vicinity. Elevations in the project area range from approximately 25 to 30 feet above sea level. The average annual precipitation for the area is 23 inches, most of which falls as rain, as recorded in nearby Richmond, the closest weather station (Dyett & Bhatia. 2010). The only water body in the proposed project area is San Pablo Creek, which flows generally from southeast to northwest just east of the proposed project area. Dominant land uses in the vicinity are light industrial warehouses and structures along Giant Road, single-family residential homes along Randy Lane, and Burlington Northern/Santa Fe railroad tracks parallel to the west side of Giant Road. Single-family residences along Road 20 also border the north side of San Pablo Creek.

2.3 Project Description

The proposed project is designed to resolve the minor to severe flooding issues during the rainy season occurring at the DI located on Randy Lane near Giant Road intersection, as recommended in the City of San Pablo Drainage Analysis Technical Memorandum (Water Works Engineers 2016). The existing Randy Lane outfall elevation is about 5 feet higher than the creek bottom elevation and 10 feet lower than the Federal Emergency Management Agency (FEMA) 100-year base flood elevation (BFE). During a normal to severe storm event, the water level in the creek rises above the current Randy Lane outfall elevation, causing local flooding. In addition, the existing 14-inch SD CMP is undersized and does not have the capacity to handle a 5-year storm or greater via gravity.

The City is proposing to install a new SD and outfall into San Pablo Creek to alleviate flooding concerns along Randy Lane. The new SD system, shown on Figure 2 -Project Layout, would consist of an 18-inch diameter PVC pipe constructed along the northern gutter of Randy Lane from the DI on Randy Lane in front of the second house from the Giant Road intersection west to a proposed SD



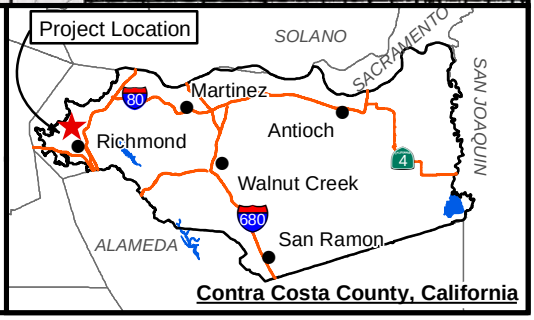
Project Location

Public Land Survey System:
T1N, R5W, Unsectioned
Land Grant: Rancho San Pablo

USGS 7.5 Quad:
Richmond (1980)

N

0 1,000 2,000 4,000
Feet



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Randy Lane Drainage Improvement Project

Figure 1
Project Location and Vicinity Map

Legend

- Project Location
- Proposed Storm Drain Alignment
- New 24" Discharge Outfall

N

0 50 100 200

Feet

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North State Resources, Inc.

Randy Lane Drainage Improvement Project

Figure 2
Project Layout

manhole at the Randy Lane/Giant Road intersection. This 18-inch diameter PVC pipe would then extend along the east edge (northbound lane) of Giant Road approximately five feet away from the curb from the Randy Lane/Giant Road intersection SD manhole to a proposed SD manhole in Giant Road approximately 90 feet south of the proposed creek outfall. At this new manhole the pipe diameter would increase to 24 inches to the outfall. The total piping length would be approximately 570 feet. Trenches ranging in depth from 3–9 feet in depth and 2.5–3.5 feet in width would be excavated for the new SD pipes. Excavations for three new SD manholes would be approximately 8 feet by 8 feet in width and up to 10 feet deep. The outfall would be installed in the concrete portion of the existing bridge wall along the creek bank and would be 30 inches in diameter, including the sleeve around the 24-inch pipe. The new outfall would be equipped with a flapper gate to prohibit the backflow of water during severe storms. New SD manholes would be constructed at the two points where the proposed 24-inch PVC pipe bends to exit off Giant Road approximately 70 feet and 90 feet south of the proposed outfall, and a third SD manhole would be installed approximately 25 feet north of the existing SD manhole at the Randy Lane/Giant Road intersection, creating a 90 degree bend in the proposed 18-inch PVC pipe within Giant Road. The existing 15-inch RCP conveying stormwater along Randy Lane, and the existing 14-inch CMP and outfall to the creek upstream of the bridge would be capped and abandoned in-place.

2.4 Construction Methods

All new SD pipe would be constructed in new trenches ranging from 3–9 feet in depth. The new SD system would connect to an existing DI on Randy Lane that will be rebuilt to accommodate the new SD pipe. Project ground disturbance would occur over an area of approximately 2,000 square feet (0.06 acre) all within existing paved surfaces.

Pipeline Trenching

The pipeline would be installed using the open cut construction method, including beneath all utility crossings. A minimum of 12-inch vertical clearance would be maintained at all utility crossings. An existing water service meter on APN 011-010-075 may need to relocate further on the property. The trench width for the pipeline installation would be approximately 2.5–3.5 feet. Manhole construction would require trenches of about 8 feet by 8 feet at each manhole, with excavations 3–10 feet deep, depending on topography. Approximately 370 cubic yards of soil would be excavated. The existing soil was determined not suitable for reuse as trench backfill material, and approximately 2,700 cubic feet of imported material (Class 2 AB – gravel) would be used as backfill in SD pipe trenches around the SD pipe and SD manhole structures. Although groundwater is not expected to be encountered during construction, the construction contractor would prepare a groundwater dewatering plan if necessary. The trenches would be backfilled to match the existing contours and grade, and the road would be re-paved and slurry sealed in accordance with Contra Costa County and City standards.

Outfall Construction

The bottom of the proposed 24-inch diameter outfall into San Pablo Creek would be installed at an elevation of 24.2 feet above mean sea level (msl) (Waterworks Engineers 2017) which is just above the FEMA BFE of 24.0 feet above msl. The base of the outfall pipe would be approximately 9 feet above the bottom of the concrete creek channel. During construction of the outfall, the City's construction contractor would place a catch basin in the creek channel to capture all debris and existing material (concrete pieces, drilling water, concrete grout, etc.) to prevent the materials from entering the creek. If there is water in the area of the creek channel where work would occur, the construction contractor may be required to install a temporary water diversion system. Scaffolding

would be erected in the creek channel for working on the outfall from the creek side. Outfall construction would include the following sequence of activities:

- setup scaffolding in creek channel;
- saw cut approximately 6 foot by 6 foot area of the vertical concrete channel wall;
- chip out the concrete with light weight jackhammers;
- clean with water;
- install rebar;
- install the wall sleeve;
- install formwork;
- pour concrete grout;
- cure concrete grout;
- strip forms; and
- install the pipe.

Most of the concrete cutting and concrete work would be performed from the land side of the channel wall to reduce the amount of debris entering the catch basin within the creek channel. No vehicles or heavy equipment would enter the creek channel.

The existing SD pipe would be abandoned in place with 3 feet of concrete fill material at both ends of the pipe.

Construction Schedule

The anticipated duration of construction schedule is approximately two months. The work period would occur during the summer months when flow in San Pablo is typically at its lowest. Outfall construction is expected to occur over a two-week period at the beginning of the project, followed by one month to install new SD pipe and SD manholes along Giant Road and within APN 011-010-075. Work along Randy Lane is expected to take an additional two weeks. Work would only occur during the day time on weekdays, and not during night time or weekends. The existing drainage system would remain in operation until the new system is installed and operational.

All activities would be within the existing road rights-of-way except for construction of two new manholes, 90 feet of trench for 24-inch PVC pipe, and the outfall structure on APN 011-010-075 at the northern end of the project. The area of construction on this parcel is a paved parking lot for a small office building. Work on APN 011-010-075 would require a temporary construction easement (TCE) and a permanent easement for maintenance of new SD pipe. No activities would take place on adjacent private properties unless specifically authorized by the property owner(s).

Construction equipment expected to be used for pipeline installation includes a back hoe, dump trucks, water truck, utility vehicles, compactor, paving equipment, and metal plates.

Traffic Control

Construction vehicles would access the project area from existing roads in the vicinity. All vehicles and equipment would stay on the road or in designated staging areas along the road; no off-road travel, particularly on private property, would be allowed during construction, except with written authorization from the property owner(s). Temporary lane closures on Giant Road and Randy Lane would be necessary for the construction of the new SD manholes and pipes. The construction contractor would be responsible for preparing traffic control plans, which would include a requirement that all lanes be reopened at the end of the day using steel plates to cover open trenches.

Residents along Randy Lane and businesses along Giant Road would be informed of the construction activities in advance, and limited access would be allowed for residents accessing their properties and for ingress/egress into businesses.

Environmental Conditions

The construction contractor would be responsible for complying with all terms of the contract specifications, implementing measures during construction to avoid or minimize adverse effects on the environment, and adhering to conditions of any permits obtained for the project. Standard construction measures include, but are not limited to:

- Identify locations of other existing underground pipelines in the proposed alignment and take necessary precautions to avoid damaging the pipelines or interfering with their service. Notify the pipeline owner of any encroachment on or disturbance to their pipeline.

- Notify and coordinate with law enforcement and emergency service providers prior to the start of construction to ensure minimal disruption to service during construction.

- Follow all safety and health requirements set forth by the Occupational Safety and Health Administration.

- Prepare and implement a fire safety plan to prevent fires from construction operations (such as welding).

- Use traffic cones, signs, lighted barricades, lights, and flagmen as described and specified in the Manual of Uniform Traffic Control Devices, current edition, California Supplement, Part 6 Temporary Traffic Control to provide for public safety and convenience during construction.

- Provide detours at all times to allow emergency vehicles access around the work area.

- On a daily basis, cover, fence, and guard, as appropriate, open excavation and ditches across roadways in such a manner as to permit safe traffic flow during hours when no work is being performed and to prevent accidents from people or animals falling into the trenches.

- Restore pavement, curbs, gutters, and sidewalks, as necessary, to pre-disturbance conditions or better.

- Do not store or use hazardous materials, such as for equipment maintenance, where they could affect nearby residences or where they might enter creeks or ditches.

- Immediately contain and clean up all spills of oil and other hazardous materials and properly dispose of the hazardous materials at approved disposal facilities.

- Implement best management practices (BMPs) during construction, in accordance with City of San Pablo Stormwater Management and Discharge Control Ordinance 8.40, which may include, but are not limited to:

  - use waddles or straw along slopes to prevent runoff from carrying pollutants off-site;

  - use gravel bags or gutter dams to prevent runoff from carrying pollutants into storm drains;
  - cover and contain dirt piles if erosion and sediment are a threat to any waterways;
  - stabilize site access points with rock to avoid tracking materials off-site;
  - use proper materials and waste storage, handling, and disposal practices;
  - use proper vehicle and equipment cleaning, fueling, and maintenance practices;
  - control and prevent discharge of all potential construction-related pollutants, such as slurry seal and asphalt oils; and
  - prepare a contingency plan in the event of unexpected rain or a control measure failure.

- Comply with Bay Area Air Quality Management District (BAAQMD) measures for reducing fugitive dust and exhaust emissions, including:
  - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
  - All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
  - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
  - All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
  - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
  - Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
  - All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
  - Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

- Project construction activities shall adhere to all of the following sound control measures:
  - Construction contractors shall be required to comply with the construction hour limitations and construction equipment standards set forth by the City of San Pablo.

- The name and telephone number of a person for the public to contact to resolve noise-related problems shall be posted.
- Construction activities shall be carried out with the minimum number of construction equipment or vehicles operating simultaneously at a given location.
- No equipment will have an unmuffled exhaust.
- Stationary construction equipment (e.g., generators, compressors) will be located as far from sensitive receptors (e.g., residences, schools, places of worship, hospitals) as possible.
- If traffic control devices requiring electrical power are employed within 500 feet of sensitive receptors, the devices will be battery/solar powered instead of powered by electrical generators.

2.5 Anticipated Permit and Approvals

Applicable federal, state, and local authorizations that may be needed prior to project implementation are identified in Table 1.

Table 1. Anticipated Permits and Approvals

Approving Agency	Required Permit/Approval	Why is Permit Required?
Federal Agencies		
U.S. Army Corps of Engineers (USACE), San Francisco District, Readiness Branch	Clean Water Act Section 408 review and permit for proposed drainage outfall in San Pablo Creek	Under agreement with Contra Costa County Flood Control District (CCCFCD), USACE Readiness Branch performs technical review of all encroachments into USACE-constructed creek channel
USACE, San Francisco District	Nationwide permit pursuant to Section 404 of the Clean Water Act	Required if work in San Pablo Creek channel will involve the discharge of dredged or fill material into waters of the U.S.
State /Local Agencies		
RWQCB	Water quality certification pursuant to Section 401 of the Clean Water Act	Required if there is a federal permit (e.g., USACE) for work in San Pablo Creek channel involving the discharge of dredged or fill material into waters of the U.S.
California Department of Fish and Wildlife (CDFW)	California Department of Fish and Game Code 1600 Streambed Alteration Agreement	Installation of new outfall into concrete creek channel

Table 1. Anticipated Permits and Approvals

Approving Agency	Required Permit/Approval	Why is Permit Required?
Local Agencies		
CCCFCD	Encroachment Permit	Installation of new outfall into concrete bridge or channel managed by CCCFCD

2.6 Alternatives Considered

During April to May 2016, the City contracted with Water Works Engineers to identify, analyze, develop and compare options in resolving the drainage/flooding issues at the project area. The resulting City of San Pablo Randy Lane Drainage Study Drainage Analysis Technical Memorandum (Waterworks Engineers 2016) identified two options to resolve the flooding issues in the project area. Option 1 consisted of the construction of a new outfall at San Pablo Creek near the Giant Road bridge south of Parr Blvd, which is the proposed project as described above. Option 2 consisted of the construction of a 6-foot diameter concrete wet well that would serve as a SD pump station with one submersible pump and level controller, and a 3 foot by 3 foot concrete valve vault with one 3-inch check valve and a 3-inch forcemain connection to the existing 14-inch CMP. The new 6-foot diameter concrete wet well would replace the existing Randy Lane DI. Under Option 2, the pump size would be designed based on the 25-year storm flow because this is the typical pump lifespan. The level switch would turn on the pump at the high water level to prevent street flooding and turn off the pump at the low water level to prevent it from running dry. An electrical service would be required from the local provider to operate the pump.

The City selected Option 1 as the proposed project based on the following needs and criteria:

- Flooding Reduction Reliability. Option 2 would require installing electrical connections and utility vaults and establishing and maintaining electrical service, all requiring more monitoring and maintenance and potentially reducing the reliability of the system. Option 1 does not require electrical or pumping equipment, thus significantly reducing the system's maintenance during its lifespan.

- Conveyance Type. The submersible pump and forcemain connection to the existing, undersized 14-inch CMP under Option 2 would require pumping equipment and electricity for effective operation, while the system under Option 1 is designed for natural gravity flow which is simpler and easier to maintain.

- Flow Capacity. Option 1 would be designed to drain a minimum 50-year flow while Option 2 would be limited to conveying a 25-year flow. Also, the existing 14-inch diameter CMP that would be used to carry water to San Pablo Creek under Option 2 may not have the capacity to handle pumped flows during larger storms when creek water levels overtop the existing outfall elevation.

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Chapter 3. Initial Study Checklist

3.1 Initial Study Checklist

This section of the Initial Study incorporates the latest version of the Environmental Checklist contained in Appendix G of the CEQA Guidelines, except that forestry resources, normally included in the Agricultural Resources environmental questions, are not discussed because they are not present in the project area and greenhouse gases (GHG) are discussed under air quality. To review the proposed project (i.e., Option 1 as described in Chapter 2), each resource section provides a brief description of the setting, a determination of impact potential, and a discussion of the impacts. Mitigation measures are identified where appropriate for adoption by SPDPW and incorporation into the proposed project and contract documents to reduce potential impacts to less-than-significant levels. The following 17 environmental categories are addressed in this section:

- Aesthetics
- Agricultural Resources
- Air Quality/Greenhouse Gas
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

- **"No Impact"** means that no impact to the resource would occur as a result of implementing the project.

- **"Less than Significant Impact"** means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.

- **"Potentially Significant Unless Mitigation is Incorporated"** means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.

- **"Potentially Significant Impact"** means that there is either substantial evidence that a project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

3.2 Setting, Impacts, and Mitigation Measures

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

Environmental Setting

The project area is an urban area of the City and contains a mixture of light industrial and residential uses. Giant Road provides local access for residents and businesses in the area, and the primary viewer groups in the project area are drivers traveling along Giant Road, and nearby residents around Randy Lane. Workers at the warehouses and associated buildings along Giant Road would also be able to see project construction if working in the outdoor paved areas adjacent to the east side of Giant Road. The nearby residences provide limited sources of nighttime lighting. No scenic vistas exist in or are visible from the project area, and no scenic highways or routes have been designated in the vicinity.

The project area is visible from Giant Road and Randy Lane. A 120-foot segment of the project pipeline will be installed within Randy Lane within 100 feet of four single family residences. The proposed outfall location in San Pablo Creek may be visible from the backyard of one residence on Road 20 across the creek channel.

Discussion of Impacts

a, b) ***No Impact.*** No scenic vistas or resources exist in or near the project area. The project would not affect these resources.

c) ***Less than Significant Impact.*** The project would have a minimal effect on the visual character of the project area. Construction activities would result in temporary disturbance to the roadways, which would be visible from some residences and for travelers along the roads, except during road closures. No long-term visual changes would take place because the pipeline would be underground and the road would be restored to its current, or better, condition. Impacts on visual quality would be less than significant. The proposed outfall installed on the concrete-lined bank of San Pablo Creek would not significantly degrade the existing visual character of the creek.

d) ***No Impact.*** The project would not create a source of light or glare. It would involve installation of an underground pipeline along existing roads and would not require nighttime lighting. No nighttime construction would take place.

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

Environmental Setting

The project area does not contain any farmland and is not designated for agricultural uses or Prime, Statewide, or Locally Important Farmland (California Department of Conservation 2014). Surrounding land includes residential and light industrial uses and San Pablo Creek. All of the surrounding land is designated as Urban and Built-Up Land by the Farmland Mapping and Monitoring Program.

Discussion of Impacts

a, b, c) ***No Impact.*** The project would be constructed in existing roads and a concrete-lined urban creek channel. None of the land in the project area is designated as important farmland by the Farmland Mapping and Monitoring Program, and the land is not under Williamson Act contracts. No agricultural activities take place in or near the project area.

III.	**AIR QUALITY/GREENHOUSE GAS** — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b)	Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
f)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
g)	Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Environmental Setting

The project area is in the San Francisco Bay Area air basin, where air quality is monitored and regulated by the BAAQMD. The air basin is currently non-attainment for ozone (state and federal ambient standards) and particulate matter (PM2.5 and PM10) (state ambient standard) (California Air Resources Board 2015). While an air quality plan exists for ozone (O_3), none currently exists for particulate matter. The Bay Area 2010 Clean Air Plan (Bay Area Air Quality Management District 2010) is the current ozone air quality plan.

The BAAQMD monitors air quality at 25 stations throughout the air basin; the closest station to the project area is in San Pablo, approximately one-half mile south of the project site. During the three year period 2013–2015 this monitoring site recorded three exceedances of the national 24-hour PM2.5 standard, while no national exceedances of the national standards for O_3, nitrogen dioxide, (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), or PM10 were measured (Bay Area Air Quality Management District 2015).

Sources of pollutants in the vicinity of the project area are vehicle emissions, wood-burning stoves in nearby residences, industrial and commercial uses near Giant Road, and construction activities that periodically take place in developed areas. "Sensitive receptors" for air pollutants are considered to be residences, schools, parks, hospitals, or other land uses where children or the elderly congregate, or where outdoor activity is the primary land use. The primary sensitive receptors in the vicinity are

several residences that exist along the north and south sides of Randy Lane immediately adjacent to the project area.

Discussion of Impacts

a, b) ***Less Than Significant Impact.*** Construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. Project construction would create short-term increases in fugitive dust (PM10 and PM2.5) and would generate both reactive organic compounds (ROG) and nitrogen oxides (NOx) emissions from vehicle and equipment operation. Basic construction measures recommended by BAAQMD and identified above under the project description would be implemented during construction to minimize air pollutants. The total area of ground disturbance would be approximately 0.06 acre, and all activities would take place within existing roads and adjacent paved areas in a developed community. Construction emissions would be temporary, lasting no more than 2 months, and would not have long-term effects on air quality. Because of the small area of disturbance, temporary nature of the emissions, and implementation of construction measures, impacts on air quality would be less than significant and would comply with the Bay Area 2010 Clean Air Plan.

c) ***Less Than Significant Impact.*** As discussed under items a, b) above, the project would result in minor construction-related emissions. It would not result in a cumulatively considerable net increase of any criteria pollutant. The project would cause short-term air quality impacts as a result of construction activities; however, it would not result in long-term or cumulatively considerable increases in air quality pollutant emissions for which the air basin is currently in nonattainment (ozone precursors and PM2.5 and PM10). The temporary increase in air pollutant emissions associated with construction activities would result in less-than-significant contributions to cumulative pollutant levels in the region.

d) ***Less Than Significant Impact.*** Residents could be exposed to temporary air pollutants from construction activities, such as fugitive dust, ROG, NOx, and CO. Construction activities would be temporary, lasting approximately 60 days, and emissions would not be substantial with implementation of BAAQMD fugitive dust control measures and standard construction practices. With the minor and temporary nature of emissions, sensitive receptors would not be exposed to substantial pollutant concentrations. This impact would be less than significant.

e) ***Less Than Significant Impact.*** Construction activities would involve the use of gasoline or diesel-powered equipment that emits exhaust fumes; construction would also involve asphalt paving, which has a distinctive odor during application. These activities would take place intermittently throughout the workday, and the associated odors are expected to dissipate within the immediate vicinity of the work area. Persons near the construction work area may find these odors objectionable. However, the limited number of receptors, infrequency of the emissions, rapid dissipation of the exhaust into the air, and short-term nature of the construction activities would result in less-than-significant odor impacts.

f) ***Less Than Significant Impact.*** Assembly Bill 32, adopted in 2006, established the Global Warming Solutions Act of 2006 which requires the State to reduce GHG emissions to 1990 levels by 2020. Senate Bill 97, adopted in 2007, required the Governor's Office of Planning and Research to develop CEQA guidelines "for the mitigation of GHG emissions or the

effects of GHG emissions," and the Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009.

GHGs are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

GHG emissions from the project would be produced from the materials used in pipeline construction and construction-related equipment emissions. The project would not result in the generation of emissions after construction is complete. GHG emissions resulting from construction activities would be short-term and minor. While the project would have an incremental contribution within the context of the county and region, the individual impact is considered less than significant.

g) ***No Impact.*** The project would not generate significant emissions of GHGs and, therefore, would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs.

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

Environmental Setting

The proposed project is located in the city of San Pablo in an area characterized as highly urban/developed with residential and light industrial land uses present in the project area and immediate vicinity. Given the urban nature of the project area, native vegetation and natural communities are generally absent. However, limited riparian habitat is present along San Pablo Creek to the east of the project area. A reconnaissance-level field review of the project area was conducted by a North State Resources, Inc. (NSR) biologist on August 30, 2016.

The urban habitat in the project area is largely devoid of vegetation and consists of paved/impervious surfaces and bare soil. Where vegetation is present, it consists of lawns and ornamental species such as jasmine (*Jasminum* sp.), fruitless plum (*Prunus* spp.), and lemon (*Citrus lemon*), which are present in the landscaping of the residential properties. Opportunistic non-native annual grasses and forbs are also present in small patches along the shoulders of Giant Road and the cracks/gaps in the concrete and asphalt within the project area and consist of tumbleweed (*Amaranthus albus*),

crabgrass(*Digitaria sanguinalis*), slender oat (*Avena barbata*), bur clover (*Medicago polymorpha*), and ripgut brome (*Bromus diandrus*).

Approximately 40 feet east from the proposed outfall structure (i.e., outside of the project area), riparian habitat is present along the banks of San Pablo Creek. The riparian habitat extends approximately 35 feet wide on both the left and right banks of the creek and is vegetated within woody species including willow (*Salix* spp.), cottonwood (*Populus* spp.), box-elder (*Acer negundo*), Himalayan blackberry (*Rubus armeniacus*), and English ivy (*Hedera helix*).

San Pablo Creek, a perennial stream, is located at the northern end of the project area and has been highly modified for the urban environment it flows through. The creek receives periodic releases from San Pablo Dam, which is located approximately 8 miles upstream of the project area, and it flows westerly to San Pablo Bay. Water levels in the creek are seasonally variable and are largely influenced by water releases from San Pablo Dam. Within the project area, the creek no longer exhibits characteristics of a natural drainage (i.e., run and riffle characteristics, natural substrates, and vegetation) and it has been modified with approximately 15-foot-high concrete walls along its banks and a concrete-lined channel which measures approximately 30 feet wide. East (upstream) of the project area, the creek channel consists of sand, gravel, and small cobbles with riparian vegetation (as described above) lining the banks.

Common animal species that may occur in the project area are those that are most often associated with urban areas and are most tolerant of human disturbances. These species include European starling (*Sturnus vulgaris*), rock dove (*Columba livia*), and house mouse (*Mus musculus*). The urban habitat in the project area may also provide habitat for migratory bird species including American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), Brewer's blackbird (*Euphagus cyanocephalus*), northern mockingbird (*Mimus polyglottos*), and house finch (*Carpodacus mexicanus*). Western fence lizard (*Sceloporus occidentalis*), raccoon (*Procyon lotor*), and striped skunks (*Mephitis mephitis*) may also utilize the urban habitat present in the project area. When water levels are high enough, San Pablo Creek in the project area may provide potential habitat for a variety of common fish species including channel catfish (*Ictalurus punctatus*), goldfish (*Carassius auratus*), and carp (*Cypinus carpio*).

A review of regionally occurring special-status plant and animal species was conducted using the CDFW *California Natural Diversity Database* (California Department of Fish and Wildlife 2017), the California Native Plant Society's online *Inventory of Rare and Endangered Vascular Plants of California* (California Native Plants Society 2017), and the U.S. Fish and Wildlife Service (USFWS) list of Federal Endangered and Threatened Species obtained from the Information for Planning and Conservation tool (U.S. Fish and Wildlife Service 2017). The review identified 22 regionally occurring special-status species (12 plants and 10 animals). However, the urban habitat present in the project area does not provide habitat for the special-status plant species, and provides potential habitat for only two of the regionally occurring special-status animal species. San Pablo Creek in the project area during the winter and early spring months may provide marginal migratory habitat for Central California Coast Distinct Population Segment (DPS) steelhead (*Oncorhynchus mykiss irideus*) which is listed as threatened under the federal Endangered Species Act. Western pond turtle (*Actinemys marmorata*), which is designated as a California Species of Special Concern by CDFW, may also be present in the creek during the same time period. Additionally, nesting migratory birds and raptors, which are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code may be present in the urban and riparian habitats.

Discussion of Impacts

a) ***Potentially Significant Unless Mitigation Incorporated.*** Central California Coast DPS steelhead and western pond turtle may occur seasonally in San Pablo Creek when water levels are high enough to support the species. However, the proposed project would be timed to occur during periods of low/no flow in the creek, when the species would not be present, and project activities would be limited to the concrete-lined portions of the creek. Therefore, the proposed project would have a less-than-significant impact on Central California Coast DPS steelhead and western pond turtle.

Construction activities would involve the use of heavy equipment (e.g., backhoe) and handheld construction tools required for the installation of the new SD pipe. If construction activities occur outside of the nesting bird season (i.e., construction occurs September 1 through February 14), no impacts on nesting birds would be expected. During the nesting season, noise from construction activities could disturb nesting migratory birds and raptors if they are present in the work area or surrounding vicinity, and could result in nest abandonment or failure. Therefore, if construction activities occur during the nesting season (i.e., nesting season is February 15 through August 31) impacts on nesting migratory birds and raptors could be significant. Implementation of mitigation measure BIO-1 would reduce potential impacts on nesting birds to a less-than-significant level.

Mitigation Measure-BIO-1: Conduct pre-construction nesting bird surveys

If construction is to occur during the nesting season (i.e., nesting season is February 15 through August 31), a qualified biologist shall conduct a pre-construction survey of the project area and a 250-foot buffer, as access is available, to search for active bird nests. If a lapse in construction activities for 14 days or longer occurs, another pre-construction survey will be performed.

If active nests are found during the pre-construction survey, the City will coordinate with a qualified biologist to identify protection measures such as establishment of a construction-free buffer zone around the nest tree. No construction activity will be conducted within the buffer zone during the nesting season or until such time that the biologist determines that the nest is no longer active or nesting activity would not be disrupted. Where practicable, the buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer zone and will avoid entering the buffer zone during the nesting season.

b.) ***No Impact.*** Riparian or other sensitive natural communities as identified in local or regional plans, policies and CDFW and USFWS regulations are absent from the project area.

c.) ***Potentially Significant Unless Mitigation Incorporated.*** San Pablo Creek is considered a water of the United States and, as such, is subject to the jurisdiction of the USACE and the RWQCB. San Pablo Creek and its banks are also subject to CDFW jurisdiction. The proposed project involves cutting and drilling the concrete portion of the creek's left bank sidewall for the installation of the SD outfall. Most of the concrete cutting and demolition work near the creek would be performed from the land side of the channel wall to reduce the amount of debris entering the catch basin placed within the creek channel. To construct the SD outfall, scaffolding and the catch basin would be placed near the sidewall within the creek. While construction activities would be timed to occur during the summer months when creek flows are typically low, a temporary water diversion may need to be constructed around the work area if excess water is present in the creek channel. While the placement of the scaffolding and catch basin within the dry creek channel is not expected to result in a

discharge of materials into San Pablo Creek, construction of a temporary water diversion could constitute a discharge regulated by the USACE and RWQCB. Additionally, mitigation measures are necessary to ensure that materials generated during cutting of the channel wall and installation of the outfall, and pollutants associated with construction equipment, do not enter the creek. Implementation of mitigation measure BIO-2 would reduce potential impacts on San Pablo Creek to a less-than-significant level.

Mitigation Measure-BIO-2: Avoid adverse impacts on San Pablo Creek

Activities within the channel of San Pablo Creek will be limited to the dry/low flow season to minimize the potential for erosion, and will be kept to the minimum area necessary to perform work. Appropriate measures (e.g., catch basin, construction mats, spill prevention plan) will be implemented to ensure that materials removed during cutting of the concrete wall and pollutants associated with construction equipment (e.g., oil, fuel, grease) do not enter the creek channel. Following completion of activities in San Pablo Creek all construction materials (e.g., equipment, debris) will be fully removed; and all areas that were temporarily disturbed will be restored, as close as practicable, to their original contour and conditions.

Prior to any activities within San Pablo Creek, notification of streambed alteration shall be submitted to the CDFW. If required, a streambed alteration agreement shall be obtained from the CDFW and all conditions of the agreement shall be implemented.

Prior to any discharge of dredged or fill material into waters of the United States (e.g., discharge associated with construction of water diversion), the required permits/authorizations shall be obtained from the USACE and the RWQCB. All terms and conditions of the required permits/authorizations shall be implemented.

d.) ***No Impact.*** No wildlife movement or migratory corridors exist in the project area given the area is highly developed and urbanized.

e.) ***No Impact.*** The proposed project would not result in the removal of trees protected under the City's municipal code, nor would it conflict with any local policies or ordinances protecting biological resources.

f) ***No Impact.*** No state, regional, or federal habitat conservation plans or Natural Community Conservation Plans have been adopted for the communities present in the project area. The proposed project would have no impact on existing conservation plans.

V.	**CULTURAL RESOURCES** — Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Setting

NSR conducted a cultural resources investigation in compliance with CEQA in order to identify any archaeological or historical resources or culturally sensitive properties that could be affected by the proposed project (North State Resources, Inc. 2017).

The project area is the traditionally tribal territory of the Ohlone, specifically those of the Chochenyo dialect of the Huchiun band (Levy 1978). The Huchiun lived in the "eastern bay shore from Temescal Creek in present-day Oakland and Emeryville to the lower drainage of San Pablo Creek in the Richmond/San Pablo area" (Von der Porten and DeGeorgey 2015). Ethnographic accounts from early 18th century contact with the Spanish indicate that the Huchiun lived in groups of roughly 100–200 individuals consisting of likely 600 to 800 people total, and were spread across the Bay Shore plains and inland valleys of modern-day San Pablo and Richmond, California (Milliken 1981).

The first European contact with the Huchiun was in 1772 when Spanish expeditions led to the San Francisco Bay Area, specifically encountering Point San Pablo. The Huchiun maintained a complex sociopolitical interaction between their small communities and participated in regional exchange, ceremonial activities, and coordinated both inter- and intra-marriages between tribes. These regional interactions persisted with neighboring tribes even during the three interactions with Europeans between 1772 and 1776; however, when the Spanish mission system erupted two months after the Anza expedition of 1776, such interactions ceased and their lifestyle was drastically altered.

While early encounters with Europeans primarily entailed trade and exchange of various European beads and food items with the Huchiun, by 1776 the Spanish mission system had reached the area and established several mission infrastructures, such as Mission Dolores in 1776 and Mission San Jose in 1800. Between 1794 and 1795 the Huchiun tribe underwent a mass "missionization" when a drought in the area combined with an influx of native groups from the East Bay practicing catechism and encouraging others to do so pushed many Huchiun members to flee to Mission San Francisco and other surrounding missions.

Between 1795 and 1797 life in the missions had become miserable with a lack of food, severe working conditions, and poor living quarters leading to outbreaks in disease. Lifestyles for those who fled the mission system were also difficult and the Huchiun population continued to dwindle until 1810 when traditional Huchiun territory and lands were completely unoccupied by native groups.

In 1817 Spanish occupants took control of the San Pablo and Richmond area when Mission Dolores established rancho headquarters between San Pablo and Wildcat creeks for grazing and agriculture. By 1823 Francisco Castro took control over the area when Mission Dolores withdrew from it and he was granted roughly 20,000 acres of land. Most of the land granted to Castro was used for grazing and herding cattle and horses which were used to supply the local people with food and animal byproducts. By 1842 the land between San Pablo and Wildcat creeks had become a commercial and residential hub owned and operated primarily by the descendants of Francisco Castro—the town of San Pablo is stated to have originated from the Castro family with many adobes and buildings on the land. With the influx of Euro-American settlers in the 1850s, the Castro's lost much of their land. San Pablo became a hub for Sierran gold miners who occupied winter seasons there, as well as Portuguese settlers looking for farmland who made use of the nearby San Pablo Bay for exporting farmed goods until construction of the Southern Pacific Railroad. With the construction of large shipyards in the mid-20th century came an influx of workers, increasing from 2,500 people in 1940 to more than 18,000 by 1945.

Background research conducted through the Northwest Information Center (NWIC) indicates that prehistoric site CA-CCO-271 and the Lower San Pablo Creek Archaeological District (P-07-004534) are in the proposed project area. Both the site and the Lower San Pablo Creek Archaeological District are eligible for listing on the National Register of Historic Places (NRHP) and are both listed in the California Register of Historic Resources (CRHR).

The State CEQA Guidelines define a historical resource as a resource included or eligible for inclusion in the CRHR (California Public Resources Code [PRC] Section 5024.1). A resource may be eligible for inclusion in the CRHR if it:

1. is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. is associated with the lives of persons important in our past;
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

All properties listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR and are thus considered historical resources for the purposes of CEQA. CEQA states that if a project would have significant impacts on significant historical resources, then alternative plans or mitigation measures must be considered.

According to the NRHP nomination form for the Lower San Pablo Creek Archaeological District, over 425 shellmounds were recorded as once existing in the San Pablo and San Francisco Bay region, the majority of which have been destroyed. The sites contained within the Lower San Pablo Creek Archaeological District, including CA-CCO-271, represent four remaining, largely intact, subsurface shellmounds. CA-CCO-271 is currently documented as occurring on both sides of San Pablo Creek, extending horizontally to Giant Road to the west, to Rumrill Boulevard to the east, Road 20 to the north, and Brookside Drive to the south. The vertical distribution of the site extends from approximately 30 centimeters (cm) (0.9 foot) below ground surface (bgs) to 180 cm (6 feet) bgs with reports of the shellmound portions of the site extending vertically for 28 feet below the surface.

Discussion of Impacts

a) ***Potentially Significant unless Mitigation Incorporated.*** Historic resources located within the project area may be affected by a number of activities including trench excavation and

introduction of fill material that may result in a substantial adverse change in the significance of a historical resource as defined in § 15064. 5. Substantial adverse changes include both physical changes to the historical resource or to its immediate surroundings such that the significance of the historical resource would be materially impaired. The SD pipe to be installed along Randy Lane is in a portion of the mapped location of the large prehistoric site CA-CCO-271 and is within the Lower San Pablo Creek Archeological District (P-07-004534). Trenches in native soil would range from 3–9 feet in depth with approximately 2,000 square feet (0.06 acre) of ground disturbance expected. Because the site is in a subsurface context and the extent of horizontal erosion of the site is unknown, the exact boundaries of the site may extend beyond Giant Road to the west. Therefore, the potential construction-related project impacts on CA-CCO-271 and P-07-004534 are considered potentially significant unless mitigation is incorporated.

Mitigation Measure CR-1: Subsurface archaeological testing

A project-specific subsurface archaeological testing program shall be developed by a qualified archaeologist in order to determine if significant cultural materials are present in the project alignment along Randy Land and Giant Road. Archaeological testing may consist of the excavation of shovel test pits, auger probes, and/or core borings. The testing plan shall be submitted to the City for review and approval prior to implementation. If significant intact archaeological deposits or human remains are found and cannot be avoided, data recovery and a Burial Treatment Plan will be implemented as necessary. In the event that data recovery and/or a Burial Treatment Plan is needed, the City will coordinate with the project owner(s) and the most appropriate and interested tribal organizations as necessary. During all subsurface investigations, measures required to address any hazardous material concerns will be implemented as necessary (see section VIII. Hazards and Hazardous Materials).

Mitigation Measure CR-2: Archaeological monitor

A qualified professional archaeologist shall monitor all ground-disturbing activities along Randy Lane and Giant Road. The monitoring archaeologist shall be provided with the authority to halt any construction activities if any cultural materials are discovered until the significance of the find has been assessed and appropriate conservation measures have been implemented.

Implementation of Mitigation Measures CR-1and CR-2 would require the identification and discovery of any previously undocumented cultural resources and would reduce potential impacts to a less-than-significant level.

b) ***Potentially Significant unless Mitigation Incorporated.*** Archival research revealed the presence of CA-CCO-271 and P-07-004534 in the project area and portions of these recorded Native American sites may be damaged or destroyed by construction activities associated with the proposed project. In light of the high potential to uncover subsurface cultural remains, this impact would be potentially significant unless mitigation is incorporated. Implementation of Mitigation Measures CR-1 and CR-2 would reduce this impact to a less-than-significant level.

c) ***Less than Significant Impact***. The proposed project area falls primarily in Quaternary and alluvial deposits and Holocene formations with very little potential to contain paleontological resources. The project area has a low sensitivity for paleontological resources because of the younger sediments and extensive past disturbance. However, any unanticipated paleontological resources will be handled in accordance with the 2030 General Plan (OSC-I-

15) requiring that ground-disturbing work in the area immediately be halted and a qualified archaeologist or paleontologist be retained to evaluate the resource's potential to be listed on the CRHR (California Public Resources Code, Section 5024.1; 14 CCR 4852). As a result, the project has a low potential to affect important or unique paleontological resources, and construction-related impacts on paleontological resources would be less than significant.

d) ***Potentially Significant unless Mitigation Incorporated.*** Human interments and are known to occur at CA-CCO-271 and could be encountered and damaged during project construction, resulting in a potentially significant impact unless mitigation is incorporated. Impacts could be reduced to less than significant with the implementation of the following mitigation measure.

Mitigation Measure CR-3: Accidental discovery

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery during construction, the City and its construction contractor(s) will take the following steps:

(1) No further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie adjacent human remains will occur until:
   A. the coroner has been contacted to determine that no investigation of the cause of death is required, and
   B. if the coroner determines the remains to be Native American:
      1. the coroner shall contact the Native American Heritage Commission within 24 hours;
      2. the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendant from the deceased Native American; and
      3. the most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in Section 5097.98 of the Public Resources Code; or

(2) Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance:
   A. the Native American Heritage Commission is unable to identify a most likely descendant or the most likely descendant fails to make a recommendation within 24 hours after being notified by the commission;
   B. the most likely descendant identified fails to make a recommendation; or
   C. the landowner or his or her authorized representative rejects the recommendation of the most likely descendant, and mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Implementation of Mitigation Measure CR-3 would reduce potentially significant impacts related to the disturbance or destruction of human remains to a less-than-significant level.

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

Environmental Setting

The western portion of Contra Costa County, where San Pablo is located, lies within the Coast Ranges geomorphic province and is characterized by folds, thrusts, and faults that form a series of nearly parallel northwest-trending ridges, interspersed with alluvium-filled valleys. Terraces and alluvial fans skirt the ridges that border San Francisco and Suisun Bays and merge into tidal flats along the Bay margins (Dyett & Bhatia 2010). Most of the San Pablo Planning Area contains alluvial deposits consisting of unconsolidated and poorly to moderately consolidated sands, silts, clays, muds, and gravel near the surface. The alluvium varies in depth, but is generally deeper in the western and central parts of the city, and thinner as it approaches the low slopes of the bedrock hillsides.

The majority of the project area is nearly level, with an average elevation of approximately 25–30 feet above mean sea level. San Pablo Creek, running east and north of the project area, has relatively steep banks partially supported by rock slope protection, concrete rubble, and poured walls to depths of 8–10 feet below grade. According to groundwater monitoring data from a California Department of Toxic Substances Control State Response Site located approximately 300 feet northwest of the proposed project outfall location, the depth to groundwater in the area is approximately 11 feet (Parsons 2016).

A geotechnical study was prepared for this project (Vertical Sciences 2016) that included drilling two boreholes to depths of 20–30 feet bgs adjacent to the proposed SD alignment in Giant Road to characterize subsurface conditions along the proposed SD alignment, evaluate the excavatability of earth materials likely to be encountered, estimate groundwater depths, and provide recommendations for site preparation, engineered fill, site drainage and subgrades, and suitability of on-site materials for use as engineered fill.

Seismicity and Fault Systems

Earthquake hazards can result from surface rupture of active faults or by ground shaking from nearby faults, which can cause personal injury or damage to structures. The San Francisco Bay Area is considered a region of high seismic activity containing both active and potentially active faults, four of which extend into Contra Costa County. Only one—the Hayward fault—extends into the City's Planning Area, and is approximately 1 mile northeast of the project area. The Hayward Fault is classified as a historically active fault because there is evidence of displacement in 1836 and 1968. The potential maximum estimated ground shaking from an earthquake on the Hayward fault ranges from very strong (MM VIII) to very violent (MM X) in the western portions of Contra Costa County. Other active earthquake faults in the region that could generate strong to violent ground shaking at the project area are the San Andreas, Rodgers Creek, and Concord-Green Valley faults. The potential for liquefaction or slope instability is considered negligible because of the soil and geologic conditions and relatively gentle slopes in and near the project area. The project area is outside the 500-foot-wide Alquist-Priolo Earthquake Fault Zone of any known faults.

Soils

Two soil types are present in the project area: Botella clay loam, 0 to 2 percent slopes, and Conejo clay loam, 0 to 2 percent slopes (Natural Resources Conservation Service 2016). The border separating these two soil types runs roughly parallel along the eastern edge of Giant Road through the project area. Thus, both soil types could occur at the project area, although most of Randy Lane lies within the Conejo clay loam. Characteristics of the soil types are described below:

- **Botella clay loam, 0 to 2 percent slopes (map unit 14):** The soil occurs on alluvial fans or flood plains and is derived from alluvium from sedimentary rock. It is moderately well drained and has a depth to a restrictive feature of more than 80 inches. The soil has moderately rapid permeability and slow runoff with a slight erosion hazard. Typical use of this soil type is for farmland and urban uses.

- **Conejo clay loam 0 to 2 percent slopes (map unit 15):** The soil occurs on alluvial fans or flood plains and is derived from alluvium from sedimentary rock. It is well drained and has a depth to a restrictive feature of more than 80 inches. The soil has moderately rapid permeability and slow runoff with a slight erosion hazard. Typical use of this soil type is for farmland and urban uses.

The two soil borings advanced along Giant Road for the project's geotechnical study describe soils in the upper ten feet as slightly plastic to plastic sandy and silty clays and silty and clayey sands.

Discussion of Impacts

a-i,iv) ***No Impact.*** Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace. The project site is not located within a

currently designated Alquist-Priolo Earthquake Fault Zone. The nearest Alquist-Priolo Earthquake Fault Zone is the Hayward Fault, located approximately 2 miles east of the project site. No active or potentially active faults have been mapped at the project site; therefore, potential for fault rupture at the site is low.

The project would not expose people or structures to potential substantial adverse effects from a seismically induced landslide because the only slopes in the project area, 10-foot-high banks of San Pablo Creek near the proposed new SD outfall, are already concrete-lined and concrete-walled.

a-ii) ***Less than Significant Impact.*** Seismic activity associated with faults in the San Francisco Bay and Coast Range areas could cause severe ground shaking in the project area due to underlying unconsolidated alluvial soils, and could damage the SD or outfall structure and create a risk for construction workers. However, the design of the SD and outfall would adhere to the most current California Building Code (based on the Uniform Building Code) seismic design criteria, as well as requirements of the City's Municipal Code, and policies contained in the City's General Plan that would reduce the potential for substantial adverse effects from seismic-related ground shaking to a less-than-significant level.

a-iii) ***Less than Significant Impact.*** Liquefaction is the transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake shaking or other rapid loading. Soils most susceptible to liquefaction are loose to medium dense, saturated sands, silty sands, sandy silts, non-plastic silts and gravels with poor drainage, or those capped by or containing seams of impermeable sediment. According to the geotechnical study (Vertical Sciences 2016) based on drill hole information collected for this project, it appears that liquefaction potential is relatively low due to the fine-grained composition of the soil and the relatively stiff to dense consistency of those materials. The design of the SD and outfall would adhere to the most current California Building Code standards and requirements for construction in various seismic environments, as well as requirements of the City's Municipal Code, and policies contained in the City's General Plan that would minimize the potential for substantial adverse effects from seismic-related liquefaction to a less-than-significant level.

b) ***Less than Significant Impact.*** The project would require excavation and trenching along Giant Road, Randy Lane, and the upper south bank of San Pablo Creek to install the SD and outfall, plus backfilling to restore the roads and concrete stream bank wall to current contours and conditions. These construction activities can expose areas of loose soil that, if not properly stabilized, can be subject to soil loss and erosion by wind and stormwater runoff. Concentrated storm water runoff, if not managed or controlled, can eventually result in significant soil loss that can threaten foundations and undermine sidewalks and roadways. The cut and fill on site would be balanced, to the extent practicable, and the re-paving of the roads would reduce the potential for long-term soil disturbance or erosion. Soils in the project area have a slight potential for erosion. An Erosion Control Plan would be prepared prior to any ground disturbance activities to provide the details of the erosion control measures to be applied on the project site during the construction period. The Erosion Control Plan would include BMPs designed to minimize sediment in site runoff during construction and reduce the potential for soil erosion to a less-than-significant level.

c, d, e) ***Less than Significant Impact.*** Although the soil types and geologic units underlying the project area are considered low strength and moderately expansive, the project would not create substantial risks to life or property from unstable or expansive soil or geologic conditions because the design of the SD and outfall would adhere to the most current

California Building Code standards, requirements of the ‘s Municipal Code, and policies contained in the City’s General Plan that would reduce the potential for adverse effects to a less-than-significant level. The project does not involve construction of septic tanks or alternative wastewater disposal systems.

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

Environmental Setting

A Transaction Screen Report was prepared for this project (Lawrence and Associates 2017) to investigate, using non-intrusive methods, the potential for environmental concerns for this project, which include the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The Transaction Screen Report incorporated information obtained from historical maps and photographs, previously prepared documents, interviews with property owners and regulatory personnel, and records review of standard state and federal environmental records sources.

The Transaction Screen Report search of the State of California Geotracker and ENVIROSTOR databases found one regulatory open case site within about 500 feet of the proposed SD alignment, the Former Shell/PG&E/Chevron Pipeline, 850-900 Brookside Drive Chevron Historic Old Valley Pipeline, RWQCB Site # 07S091, Geotracker ID SLO601373182. The former Shell/PG&E/Chevron Pipeline Site includes suspected releases of petroleum hydrocarbons from two former pipelines running parallel to two north-south-trending railroad lines west of Giant Road through four commercial/industrial-developed parcels.

Reports available on the Geotracker database show that the Shell/PG&E/Chevron pipeline petroleum hydrocarbon contaminant plume is hydrologically downgradient of the project site based on recent groundwater contours of the project site, along with the locations and test results of the nearest soil borings, soil-vapor probes, and groundwater monitoring wells. The Supplemental Investigation Report for the former Shell/PG&E/Chevron Pipeline Site (AECOM 2015) maps the approximate extent of hydrocarbon-impacted groundwater from that site extending into the project area in 2015. Based on interpolation of detected groundwater contamination at the monitoring points down-gradient and cross-gradient of the project location, groundwater contamination below the project site may vary from non-detect to 1,000–3,000 micrograms per liter (ug/L). These upper concentrations are both above the Environmental Screening Level (ESL) of 500 ug/L for groundwater that is not a current or potential drinking water source, as established by the RWQCB (AECOM 2015). This ESL takes into account vapor migration.

Soil borings within Giant Road near the project site boundary were non-detect for petroleum contaminants, so there are no indications that the proposed project will encounter petroleum contaminants in soil (Lawrence and Associates 2017). October 2016 observations of subsurface soils in the Geotechnical Report (Vertical Science 2016) confirm the absence of petroleum contamination observations in soil at the project site.

Groundwater contamination by gasoline and diesel was detected about 130 feet downgradient (west) of the project site, at a depth about 7 to 8 feet below the bottom of the proposed project trench excavation (Lawrence and Associates 2017). Because the groundwater contamination is identified downgradient of the project site and well below the bottom of the proposed SD trench and SD manhole excavations which vary from about three feet to about 10 feet in depth, there is a low risk for encountering groundwater contamination.

The nearest soil vapor test results from the former Shell/PG&E/Chevron Pipeline site (collected at monitoring point SV-1 within 130 feet west of the project site boundary) indicate recent gasoline soil vapor concentrations up to 2,600,000 micrograms per cubic meter (ug/M^3). This concentration exceeds the residential ESL of 300,000 ug/M^3 and commercial/industrial ESL of 2,500,000 ug/M^3 established by the RWQCB for soil gas (RELLC 2017) and is therefore significant. Because hydrocarbon-impacted groundwater has the potential to release volatile organic compound (VOC) vapors that could migrate vertically up through soils to the ground surface, and there are no structural or other safeguards that would prevent or lessen soil vapors from migrating out of condensed native soil into the open trenches, there is a potentially significant risk that gasoline soil vapor could be encountered in the project site excavation.

Discussion of Impacts

a, b) ***Less than Significant Impact.*** Small amounts of hazardous materials would be used during construction activities for equipment maintenance (e.g., fuel and solvents), concrete and grout around the proposed outfall, and re-paving the roads. Use of hazardous materials would be limited to the construction phase and would comply with applicable local, state, and federal

standards associated with the handling and storage of hazardous materials. Hazardous materials would not be stored or used, such as for equipment maintenance, near San Pablo Creek to prevent accidental discharge of hazardous materials into the water. The contractor would be required to immediately clean up any spills and properly dispose of all wastes and used spill control materials. With implementation of these standard construction practices, impacts associated with the use or accidental spill of hazardous materials would be less than significant.

c) ***Less than Significant Impact.*** The project area is within 0.25 mile of the Brookside Children's Center at 847 Brookside Drive, which is approximately 130 feet to the west of Giant Road and across the Burlington Northern/Santa Fe railroad tracks from the project site. Based on documents and records listed on the State Water Resources Control Board's Geotracker online database for the Former Shell/PG&E/Chevron Pipeline State Cleanup Site, it is possible that excavation and trenching associated with the project could encounter hydrocarbon-impacted soils and groundwater. However, the City's construction contractor would implement standard construction practices and comply with appropriate state and federal environmental, health and safety measures to ensure any potential hazardous material spills are immediately cleaned up and any hazardous wastes removed from excavations are properly characterized, handled, contained, and disposed to avoid adverse effects on the environment and exposure of people to such hazards. The project would not pose a hazard to school children at the nearby school as a result of use, storage, and disposal of hazardous materials during construction, and impacts would be less than significant.

d) ***Potentially Significant Unless Mitigation Incorporated.*** Based on the case file for the nearby Shell/PG&E/Chevron Pipeline case, there are currently indications that total petroleum hydrocarbons as diesel from this known contaminated vicinity site have migrated to the project area. Shallow soil and groundwater samples collected adjacent to the Randy Lane project site for the Former Shell/PG&E/Chevron Pipeline State Cleanup site do not confirm this migration at the depth of the proposed replacement SD (3–10 feet bgs). Thus, project construction activities have a low potential to encounter shallow groundwater contaminated with petroleum hydrocarbons that could require dewatering and/or treatment.

However, the nearest soil-vapor test result associated with the Former Shell/PG&E Chevron State cleanup Pipeline site showed elevated gasoline soil vapor within 130 feet (west) of the project area boundary at levels exceeding regulatory commercial screening levels. This result coupled with the fact that groundwater below the project site could be impacted by hydrocarbons migrating from an off-site source, suggests there is the potential that gasoline soil-vapor could be encountered during excavation. Exposure to hydrocarbon-impacted soil, soil vapor, or groundwater encountered during project excavation activities could pose a significant hazard to construction workers, the public, and the environment and would be potentially significant unless mitigation is incorporated.

Mitigation Measure HAZ-1: Protection from worker exposure to potentially contaminated soil vapor during ground-disturbing activities.

To address the potential health risk of workers being exposed to soil vapors which may be encountered while excavating the trench lines, the contractor should be prepared to measure VOCs such as benzene associated with petroleum product by using a field photoionization detector or equivalent field meter capable of measuring VOCs in air. Based on a positive detection, the contractor shall implement the following measures to reduce impacts to less than significant levels:

- Provide workers with personal protective equipment suitable to resist exposure to the detected VOCs, such as air-purifying respirators equipped with appropriate VOC-filtering cartridges.

- Prepare a site safety and health plan (SSHP) pursuant to 29 CFR 1910 and the *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities* for worker safety and characterization of petroleum-contaminated soils. The SSHP would include hazardous materials and waste training requirements for any personnel that could be exposed to elevated concentrations of VOCs in soil vapor, soils, or groundwater. The SSHP would keep occupational exposure within prescribed limits and to prevent the migration of contaminants beyond the site boundaries (a Cal-OSHA requirement for work at hazardous waste sites).

- Cover stockpiled soil removed from the trench with plastic sheeting, and collect one 4-point composite sample for each 50 cubic yards of stockpiled soil for laboratory analysis for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, and VOCs, using EPA test methods 8010 and 8260 or equivalents. Soils with detectable concentrations below State of California Environmental Screening Levels (ESLs) that cannot be used on site must be treated to non-detect levels or disposed at a permitted petroleum-contaminated soil disposal facility, such as a Class II or Class III solid waste landfill that is permitted for this purpose. Each soil disposal facility has its own acceptance criteria, so additional characterization testing may be required. Soils with concentrations above ESLs should be removed by personnel having a Class A general contractor's license with hazardous materials rider and 40-hour Hazwoper training, and disposed at appropriate licensed facilities.

e, f) ***No Impact.*** The project area is not near a public or private airport. The project would not expose people to hazards associated with airport activity or a hazardous waste site.

g) ***Less than Significant Impact.*** Construction activities would require temporary lane closures around the work area on Giant Road and Randy Lane. Emergency access to or evacuation from surrounding areas would not be restricted during construction because of the availability of nearby streets running parallel to Giant Road, the closest being Rumrill Boulevard approximately 1,000 feet to the east. Minor delays may be experienced for access to or evacuation from the residences or businesses adjacent to the work area. Adequate road access would be available in the event of an emergency to allow vehicles to drive around the work area, which would ensure the project does not prevent emergency access to the residences or conflict with an emergency response or evacuation plan. Impacts would be less than significant.

h) ***No Impact.*** The project area is not in a high or very fire hazard severity zone, and the surrounding area is predominantly urban and developed. A fire safety plan would be in place during construction to prevent fires from construction activities such as welding. The project would not increase the risk of wildfire near an urban area.

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

Environmental Setting

The project area is in the San Pablo Creek watershed, which drains approximately 27,640 acres and includes 109 miles of creek channel from the Orinda area into San Pablo Reservoir, then downstream through heavily urbanized residential and commercial areas of Richmond and Pablo before reaching salt marshes in San Pablo Bay (Association of Bay Area Governments 2006). Flows in San Pablo Creek are influenced by urban runoff and releases from San Pablo Dam. The project outfall location at San Pablo Creek is approximately 1.7 miles from San Pablo Bay.

The project site is within the East Bay Plain Sub-Basin and groundwater beneath adjacent hazardous waste investigation sites was measured at depths ranging from approximately 11–14 feet bgs Groundwater flow direction at adjacent properties to the west and north is generally towards the northwest, given the site's surface topography and its proximity to San Pablo Bay (approximately one mile west of the site). Groundwater at the project site is currently not used as a source of drinking water. According to the San Francisco RWQCB's Basin Plan, however, groundwater at the site is considered a potential source of municipal water.

The existing Randy Lane drainage system has a total six DIs that intercept stormwater flows from the drainage area displayed in Figure 1. Five DIs are located near the corner of Brookside Drive and Giant Road, conveying the collected drainage in to the SD manhole located at the Giant Road and Randy Lane intersection. A 15-inch RCP carries stormwater from this SD manhole to a DI on Randy Lane. The stormwater flows are further conveyed from the Randy Lane DI via a 14-inch CMP traveling through the existing 10-foot-wide easement discharging into San Pablo Creek. The City has experienced severe flooding incidents occurring during a normal to severe storm event. During a storm event, as the creek level rises above the outfall elevation, the stormwater flows from the 14-inch CMP are restricted from entering the creek. The stormwater from Randy Lane area will flow only when the creek level falls below the outfall elevation (i.e., below 24.31 feet). In a severe storm event, it takes much longer (several days) to discharge to the creek.

The project area is in Zone AE, a Special Flood Hazard Zone with a BFE of 34.5 feet corresponding to a 1 percent annual chance flood hazard (Federal Emergency Management Agency 1998).

Discussion of Impacts

a) ***Less than Significant Impact.*** The project would comply with the City's Ordinance 8.40 Stormwater Management and Discharge Control, written to protect and enhance the water quality in the city of San Pablo's watercourses pursuant to, and consistent with the Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) and the Federal Clean Water Act (33 U.S.C. Section 1251 et seq.). This ordinance also carries out the conditions in the City's National Pollutant Discharge Elimination System (NPDES) permit that require implementation of appropriate source control and site design measures and stormwater treatment measures for projects that create or replace ten thousand square feet or more of impervious surface. Although the area of ground disturbance for this project does not necessitate that a SWPPP be prepared, similar BMPs would be implemented during construction activities to avoid or minimize discharge of pollutants from construction activities. SD installation would take place during the dry season to minimize water quality impacts. If a slurry or other substance is used during SD installation, or hydrocarbon-impacted groundwater is encountered, necessary precautions would be taken to ensure these potentially hazardous fluids do not enter the stormwater pipes or discharge to San Pablo Creek. Implementation of BMPs and constructing the project during the dry season would ensure project impacts on water quality are less than significant.

b) ***No Impact.*** The project would not require use of groundwater supplies or affect groundwater recharge in the area.

c, d) ***Less than Significant Impact.*** The proposed project is designed to resolve the minor to severe flooding issues during the rainy season occurring at the existing DI located on Randy Lane near the Giant Road intersection, by relocating the SD outfall approximately 500 feet downstream to a section of San Pablo Creek with a lower BFE, and installing new, larger diameter, SD piping to that outfall. These local SD system alterations would be located

underground beneath existing roads, and the roads would be restored to current contours. The new outfall location is in a section of the creek where the bank and channel bottom are concrete-lined, minimizing erosion and siltation in San Pablo Creek. During project construction, the City would implement erosion and sediment control BMPs in accordance with the City's Ordinance 8.40 Stormwater Management and Discharge Control, , and comply with any water quality protection measures contained in its easement from CCCFCD. No alterations to the creek's natural bank or channel would occur. The proposed SD pipelines would connect to the existing DI on Randy Lane and serve the same surface area as the current drainage system. Thus the project would not substantially increase the rate or quantity of surface runoff resulting in flooding, and impacts on the drainages would be less than significant.

e, f) ***Less Than Significant Impact.*** The existing 14-inch SD pipe under Randy Lane is undersized and does not have the capacity to handle a 5-year storm or greater via gravity. Because of this deficiency, both proposed pipe diameters have been increased for a minimum 50-year storm flow capacity to meet the project area's drainage needs. The project would not have other water quality impacts beyond those discussed under item (a,c, & d) above.

g, h, i, j) ***No Impact.*** The project would not involve placement of housing or other structures in a flood zone. The proposed outfall structure would be constructed just above the 100-year flood elevation, and not protrude appreciably from the concrete-walled creek bank. Thus it would not impede or redirect flood flows in the creek. The proposed project would not expose people or structures to risks from flooding or inundation by seiche, tsunami, or mudflow.

X.	**LAND USE AND PLANNING** – Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c)	Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒

Environmental Setting

The project area is within the City limits. Adjacent land uses include residential, commercial, and light industrial uses, and San Pablo Creek. The project area falls mostly within City road rights-of-way except for where the proposed SD pipe bends slightly east from Giant road for approximately 90 feet to the new outfall location at the bank of San Pablo Cree that is within APN 011-010-075. No habitat conservation plans have been adopted for the area.

Discussion of Impacts

a) ***No Impact.*** The project involves construction of an underground pipeline under existing roads. It would not physically divide an established community.

b) ***Less Than Significant Impact***. The City would need to acquire a TCE and permanent utility easement through a portion of APN 011-010-075 at the northern end of the project. The City is also required to acquire an encroachment permit for the new outfall from the CCCFCD and approval of the proposed work from the Regulatory Branch of the San Francisco District Corps of Engineers, which built the concrete Parr Road bridge box culvert and concrete flood control channel at the proposed outfall site. The City must also notify the California Department Fish and Wildlife of the proposed stream channel alterations pursuant to Section 1600 of the California Fish and Game Code. The proposed project would not conflict with the City's General Plan or Zoning Ordinance.

c) ***No Impact.*** No state, regional, or federal habitat conservation plans or Natural Community Conservation Plans have been adopted for the project area; therefore, no impacts would occur.

XI.	**MINERAL RESOURCES** — Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

Environmental Setting

The project area does not contain any active quarry or mining sites and is not known to contain potential mineral resources (Dyett & Bhatia 2010).

Discussion of Impacts

a, b) ***No Impact.*** The project area is not in an area of known mineral resource potential. The project would require the use of certain mineral resources for backfilling trenches and re-paving the roads, and these resources would come from locally viable sources and would not result in the loss of availability of a valuable mineral resource.

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

Environmental Setting

The City's Noise Ordinance (Municipal Code, Chapter 9.12 010 Noise Control) prohibits the following acts, among other acts:

> B. Operate or use in connection with building operations between the hours of ten p.m. and seven a.m. any pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist, power-driven saw or any other tool or apparatus the use of which is attended by loud or unusual noise, except by written permission of the building inspector, and then only in case of emergency; and
>
> D. Test run trucks or other similar, heavy equipment, except for a reasonable warm-up period, between the hours of ten p.m. and seven a.m., unless such testing or running in is done within a building or specially designated structure, and the noise from such testing or running in is reasonably confined to such building or structure.

San Pablo Municipal Code, Section 7.15.40, restricts construction noise to a maximum of 65 DeciBels, Adjusted, (dBA) at the property line of any residence, school, or church in the vicinity of the construction zone.

General Plan Policies that Reduce Impacts from Construction Noise

SN-G-9. Protect public health and welfare by eliminating noise problems and maintaining an acceptable indoor and outdoor acoustic environment.

SN-I-40. Work with Caltrans, AC transit and railroad operators to mitigate transportation related noise impacts on residential areas and sensitive uses. Additionally, continue to limit hours for construction and demolition work to reduce construction-related noises.

Ambient noise levels in the project area and vicinity are primarily from vehicular traffic along Giant Road and nearby roads, periodic noise from industrial uses from the auto repair shop on the eastern side of Giant Road, trains using the railroad tracks running parallel to the western side of Giant Road, and typical residential noises from the nearby residences. Ambient noise levels are relatively high as a result of these sources and the urban nature of the area. Sensitive receptors in the vicinity include the residences along Randy Lane and the south side of Road 20 on the north side of San Pablo Creek, and children at the Brookside Children's Center on the west side of the railroad tracks approximately 130 feet west of the project area. There are no large trees, buildings, or solid walls between the project area and the residential sensitive receptors on Randy Lane and Road 20. A row of large trees and a 5-foot high railroad track berm act as noise buffers between the project area and the Brookside Children's Center.

Discussion of Impacts

a) ***Potentially Significant Unless Mitigation Incorporated.*** Project construction activities would increase noise levels temporarily in the vicinity of the project area and may periodically exceed the San Pablo Municipal Code, Section 7.15.40 construction noise standard of 65 dBA at the property line of residences on Randy Lane and on Road 20 that back up to the north bank of San Pablo Creek across from the proposed outfall. See below sections XII (c) and (d), respectfully, for further discussion of the project's permanent and temporary noise impacts and mitigation measures. Mitigation Measure NOISE-1 would reduce potential temporary noise impacts to less-than-significant levels.

b) ***Less than Significant Impact.*** During excavation and construction activities for the proposed project, groundborne vibration would be produced by the heavy-duty construction equipment such as jackhammers, backhoes, and loaded trucks. According to the vibration velocities for these typical construction equipment complied by the Federal Transit Administration (FTA) (Federal Transit Administration 2006), the maximum vibration levels generated by this equipment would be 0.076 Peak Particle Velocity (inches per second) at 25 feet from the source (for loaded trucks). These vibration levels would not exceed the FTA's building damage threshold of 0.5 inch per second peak particle velocity. Therefore, short-term construction-related groundborne vibration impacts would be less than significant. Project operations would not generate any groundbourne vibration impacts.

c) ***No Impact.*** The primary purpose of the proposed project is to provide new underground SD pipelines and a new SD outfall and abandon in place the existing substandard pipes and outfall to alleviate local street flooding during large storms. After the new SD pipelines and outfall are installed, operational noise would be similar to the former drainage system where the only noise sources would be noise associated with storm water discharging from the outfall into the concrete-lined channel of San Pablo Creek during and after rain events, and truck noise associated with periodic SD system maintenance inspections. These periodic

noise sources would be similar to the current SD system and would not generate noise levels in excess of standards in the City's General Plan.

d) ***Potentially Significant Unless Mitigation Incorporated*** Construction activities would increase noise levels temporarily in the vicinity of the project area and may periodically exceed the San Pablo Municipal Code, Section 7.15.40 construction noise standard of 65 dBA at the property line of any residence, school, or church in the vicinity of a construction zone. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. Noise levels for typical construction equipment that may be used are listed in Table 2.

Table 2. Typical Construction-Related Noise Levels

Construction Equipment	Typical Noise Level 50 Feet from Source (DeciBels)
Truck	88
Backhoe	80
Concrete mixer	85
Crane	85
Loader	85
Concrete pump	82
Pump	76

Source: Federal Highway Administration 2006

Based on construction equipment noise levels in Table 2 the closest residential property lines to proposed construction areas (immediately adjacent on Randy Lane) could experience maximum noise levels up to 88 dBA. Thus, potentially significant construction noise impacts would be associated with the proposed project. Implementation of the City's noise ordinance, combined with Mitigation Measure NOISE-1 described below, would reduce potential impacts to less-than-significant levels.

- Noise generated by construction activities in the project area would not be substantially noticeable at the Brookside Children's Center because its distance and presence of the intervening raised railroad tracks would act as partial noise buffers. Noise from activities within Randy Lane would be more noticeable because of the larger number of sensitive receptors closer to construction activities. Compliance with the City's noise ordinance and General Plan construction noise policies would ensure that construction noise impacts would be less than significant at this sensitive receptor location.

Mitigation Measure NOISE-1: Construction Noise

Within the City, construction zones which are located within 400 feet of a residential, church, or school property line shall adhere to the following restrictions:

- Trucks or other equipment supporting the construction effort shall not use audible back-up warning devices but shall instead employ an outside observer to guide backing maneuvers of such trucks and equipment.

- Construction support trucks and equipment shall not be left idling during loading and unloading activities.

- High noise-generating activities including saw cutting, jack hammering, and trench excavation shall not be conducted simultaneously within 200 feet of other.

- Jack-hammering shall be limited to no more than 10 minutes of any hour, at each specific location, and shall not be conducted within 200 feet of another jackhammering location.

- For rock sawing or trenching operations, which would involve trencher, trucks, backhoes, and other equipment associated with trench installation, temporary noise barriers with a sound transmission class rating of at least 25 shall be erected and maintained between rock sawing operations and any vicinity residential, church, or school property line to limit noise levels to 65 dBA at 50 feet.

e, f) ***No Impact.*** The project area is not near a public or private airport or airstrip. The project would not expose people to noise from airport activities.

XIII. **POPULATION AND HOUSING** — Would the project:		*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c)	Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

The project area is in an urban area of mixed residential and light industrial uses and is surrounded by developed properties. The project area falls mostly within road rights-of-way, except for a small easement through one light industrial property. The project's purpose is to replace an existing, poorly functioning SD system in an existing neighborhood by relocating a SD outfall approximately 500 feet downstream above the FEMA 100-year floodplain elevation to accommodate drainage for a 50-year storm event.

Discussion of Impacts

a, b, c) ***No Impact.*** The proposed SD pipeline would improve existing drainage for the immediate neighborhood within San Pablo and would accommodate existing and planned capacity for the area. It is not designed to encourage new, unplanned development. The project would not induce growth or displace houses or people during construction or operation.

XIV. **PUBLIC SERVICES** — Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

The project area follows public roads in the community of San Pablo. The roads are used for emergency access for fire, police, and emergency service vehicles, when necessary. Fire protection services in the City are provided by the Contra Costa Fire Protection District. The City and the surrounding areas are served by Station 70, located at 13928 San Pablo Avenue. An Emergency Medical Services Squad Unit also operates out of Station 70 (City of San Pablo 2011b). Police services are provided for by the City. The City is served by the West Contra Costa United School District, which operates five elementary schools and one middle school within the city. Parks and other public services are provided for nearby residences by the City and other public agencies and districts. No public service offices or facilities are located in or immediately adjacent to the project area.

Discussion of Impact

a) ***No Impact.*** The project would not affect public services in the local communities, increase the demand for public services, or require construction of new governmental facilities. The City would keep one lane open on Giant Road and Randy Lane with traffic control at all times during project construction to allow emergency vehicles access around the work area.

		Potentially Significant Impact	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
XV.	**RECREATION** — Would the project:				
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?	☐	☐	☐	☒
b)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

No recreational facilities are located in the project area. Bike lanes are not designated on the roadways, but bicyclists and pedestrians may use the roads as a transportation route.

Discussion of Impacts

a, b) ***No Impact.*** The project would not involve construction of recreational facilities and would not affect use of such facilities in San Pablo and Richmond areas.

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

Environmental Setting

The project area follows Giant Road from the intersection of Randy Lane north to the intersection of Parr Road/Road 20 just north of the bridge over San Pablo Creek. Giant Road is designated as a two-lane arterial road by the City (City of San Pablo, 2011a). In the project area Giant Road has a paved shoulder on the west side, and no shoulder but sidewalk on the east side bordering commercial properties in the project segment. Parking is allowed along the western shoulder of Giant Road, but not on the eastern side of the road. Randy Lane is a narrow two-lane residential road that dead-ends in a cul-de-sac approximately 300 feet east of Giant Road.

Local and region bus services are provided by Alameda-Contra Costa Transit District and Western Contra Costa County Transit. There are no bus stops located in the project area. No city-wide bicycle plan currently exists. No designated bike lanes or paths exist along the roads in the project area, but bicyclists may use the roads for transportation. Burlington Northern/Santa Fe railroad tracks and run parallel to the west of Giant Road in the project area. The city of San Pablo is not included in the airport land use plan of any public airport or public use airport. The nearest airport is Oakland International Airport, located approximately 12 miles to the south of the San Pablo city limits.

Discussion of Impacts

a) ***Less than Significant Impact.*** Construction traffic (equipment and materials transport and daily worker traffic) would increase traffic on local roads during the construction phase.

Temporary construction traffic would be limited to equipment and material transport periodically during the two-month construction phase, primarily at the beginning and end of construction, and a few vehicles daily during the construction phase. The temporary construction-related traffic would not result in a noticeable increase in traffic on local roads and is not expected to reduce the levels of service for the roads. Large vehicles transporting equipment and materials to the project area could cause slight delays for travelers as the construction vehicles stop to unload. Lane and road closures would also require travelers to detour around the project area or expect delays while traveling through the project area. Traffic control measures would be in place during the construction phase to alert travelers to potential delays and identify detour routes. With these measures and the temporary nature of construction-related traffic, impacts on traffic would be less than significant.

Traffic associated operational activities would be limited to maintenance trucks that would undertake physical inspection of project components a few times per year. Such activities would not introduce new traffic to the city and would not adversely affect roadway levels of service.

b) ***Less Than Significant Impact.*** The project would not increase traffic on local roads or highways to a level that would affect the level of service of the roadway. It would not result in long-term traffic increases.

c) ***No Impact.*** The project would not affect air traffic patterns and would have no effect on air traffic levels or safety.

d) ***No Impact.*** The project would not involve activities that could increase hazards due to a design feature or incompatible uses.

e) ***Less than Significant Impact.*** Construction activities would require temporary lane closures in the work area for approximately 60 working days. At least one open lane would be available throughout the construction period in the event of an emergency to allow vehicles to drive through the work area, which would ensure the project does not prevent emergency access to the residences. The City's construction contractor would coordinate with law enforcement and emergency service providers prior to the start of construction to ensure minimal disruption to service during construction, pursuant to the Environmental Conditions as described in the Project Description. Residents and businesses would also be notified in advance of construction, and limited access would be allowed for workers and residents accessing their properties throughout the construction phase. Impacts relating to emergency access would be less than significant.

f) ***Less Than Significant Impact.*** The project does not include or require on-street or off-street parking, other than temporary construction parking in designated staging areas along the road. Construction activities would temporarily remove a few parking spaces within a small business parking lot on the northern end of a commercial business along Giant Road during construction of the outfall and nearby SD piping. Because the parking space removal would be short-term, occurring over an approximately two-week period, and the City would notify the business prior to construction so that alternative parking can be arranged, the impacts on parking would be less than significant.

g) ***No Impact.*** The project would not conflict with alternative transportation policies, programs, or plans for the region.

		Potentially Significant Impact	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
XVII.	**TRIBAL CULTURAL RESOURCES** — Would the project cause a substantial adverse change in the significance of a tribal cultural resource, 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:				
a)	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), or	☐	☒	☐	☐
b)	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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Environmental Setting

Assembly Bill 52 (AB 52), effective July 1, 2015, amends sections of CEQA relating to Native Americans. AB 52 establishes an additional category of cultural resources—Tribal Cultural Resources (TCRs)—and states that a project that may cause a substantial adverse change in the significance of a TCR may have a significant effect on the environment. Defined in Section 21074 (a, b, and c) of the PRC, TCRs are:

> (A.1) Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:
>
> a. Included or determined to be eligible for inclusion in the CRHR; or
>
> b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
>
> (A.2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
>
> (B) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and
>
> (C) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as

defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms to the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

As presented in Section 3.2-V – Cultural Resources, NSR conducted a cultural resources investigation in compliance with CEQA in order to identify any archaeological or historical resources or culturally sensitive properties that could be affected by the proposed project (NSR 2017). NSR's cultural resources investigation indicates that prehistoric site CA-CCO-271 and the Lower San Pablo Creek Archaeological District (P-07-004534) are in the proposed project area. Both the site and the Lower San Pablo Creek Archaeological District are eligible for listing on the NRHP and are both listed in the CRHR. The sites contained within the Lower San Pablo Creek Archaeological District, including CA-CCO-271, represent four remaining, largely intact, subsurface shellmounds.

On October 31, 2016, AB 52 compliance letters were sent from the City to the following individuals to inform them of the proposed project and if they wished to consult.

- Honorable Raymond Hitchcock, Chairperson of Wilton Rancheria
- Andrew Galvan, Chairperson of the Ohlone Indian Tribe
- Honorable Katherine Erolinda Perez, Chairperson of North Valley Yokuts Tribe
- Honorable Ms. Rosemary Cambra, Chairperson of Muwekma Ohlone Indian Tribe of the SF Bay Area
- Honorable Ann Marie Sayers, Chairperson of Indian Canyon Mutsun Band of Costonoan
- Honorable Irenne Zwierlein, Chairperson of Amah Mutsun Tribal Band of mission San Juan Bautista

On December 5, 2016, the City received a letter from Antonio Ruiz Jr., Cultural Resources Officer, of the Wilton Rancheria formally requesting tribal consultation under the provisions of PRC 21080.3.1, and requesting copies of the records search results and other cultural resource documents for the proposed project. The City sent an email to Mr. Ruiz and Mr. Ed Silva (Tribal Resources Coordinator of Wilton Rancheria) initiating consultation on January 11, 2017. On January 23, 2017, a project location map and available cultural resource documents were provided to Mr. Ruiz and Mr. Silva. Notice was received on March 1, 2017 from Mr. Silva, indicating that he was able to download the files. The City emailed Mr. Ruiz. and Mr. Silva of Wilton Rancheria on March 8, March 15, and March 27, 2017 requesting a response based on the Wilton Rancheria's review of the information provided by the City. No further response was received from the Wilton Rancheria. On May 4, 2017, the City sent a letter to Mr. Ruiz and Mr. Silva informing them that the tribal consultation has been concluded, pursuant to Public Resources Code section 21080.3.2 (b), because the Wilton Rancheria had not engaged in the consultation process.

On February 9, 2017, certified letters were sent to the above-listed individuals who did not respond to the initial October 2016 notification letters in order to ensure that the tribes were provided with the opportunity to consult. To date, there have been no responses to the certified letters.

Discussion of Impacts

a,b) ***Potentially Significant unless Mitigation Incorporated.*** The recorded cultural sites contained within the Lower San Pablo Creek Archaeological District (P-07-004534) represent four remaining, largely intact (at least 75 percent), subsurface shellmounds. Human remains and their associated funerary objects at CA-CCO-271 may possess value beyond their importance as sources for information about the past. Cultural resources sites CCA-CCO-271 and P-07-004534) which include portions of the project area, are NRHP-eligible and CRHR-listed historic properties because of their prehistoric research value and cultural/religious significance to Native Americans, qualifying them as TCRs.

Historic resources located within the project area may be affected by a number of activities including trench excavation and introduction of fill material that may result in a substantial adverse change in the significance of a TRC. Therefore, the potential construction-related project impacts on CA-CCO-271 and P-07-004534 are considered potentially significant unless mitigation is incorporated. Implementation of Mitigation Measures CR-1, CR-2, and CR-3 would reduce potential impacts to a less-than-significant level.

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

Environmental Setting

Water supply to the project area is provided by the East Bay Municipal Utility District (EBMUD), which derives its water source from the Mokelumne River in the Sierra Nevada. This water is transmitted via aqueduct to storage and treatment facilities throughout EBMUD's service area and then distributed to customers.

Wastewater treatment and disposal services in the city of San Pablo, including the project area, are provided by the West County Wastewater District. The West County Wastewater District operates a wastewater treatment plant in North Richmond with a capacity of 8.9 million gallons per day.

Solid waste collection and recycling services is provided by Richmond Sanitary Service, an affiliate of Republic Services Inc. Although the company owns and operates a 21-acre site in the city of Richmond including the West Contra Costa Sanitary Landfill, this landfill is no longer accepting regular solid waste. Currently, solid waste in the area is brought to the Keller Canyon Landfill in the city of Pittsburg or to a transfer station in the city of Richmond for redirection to the Potrero Hills Landfill in Solano County.

According to a lifetime remaining capacity analysis for Contra Costa County, there is no projected landfill capacity shortfall through 2025, assuming a medium rate of population growth (CalRecycle 2016).

Overhead power lines follow Giant Road on the eastern side of the road. The project SD pipelines and manholes have been designed to avoid underground natural gas and sanitary sewer lines running down the middle of Giant Road; and underground gas, sanitary sewer, and potable water lines along Randy Lane to the extent practicable. An existing water service meter near Giant Road on APN 011-010-075 would be relocated a few feet to the east behind the sidewalk. Two 1-inch diameter and one 2-inch diameter potable water pipes leading to houses along Randy Lane would be relocated, as well as one fire hydrant.

Discussion of Impacts

a) ***Less than Significant Impact.*** As described in Section 3.2.VIII Hazards and Hazardous Materials, there is a low risk of encountering groundwater, based on the project's anticipated depths of excavation. Therefore, the project is not expected to involve the pumping and treatment of groundwater that could result in wastewater subject to wastewater treatment requirements of the applicable Regional Water Quality Control Board.

b) ***No Impact.*** The project is not expected to result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.

c) ***Potentially Significant Impact unless Mitigation Incorporated.*** The project involves replacement of an existing SD system by excavating new trenches and installing a new outfall in sensitive environments, including San Pablo Creek, a Native American site eligible for listing on the NRHP and listed on CRHR, and adjacent homes. As described elsewhere in this IS/MND, the project would involve temporary construction impacts that could result in potentially significant impacts on biological resources, cultural resources, hazardous materials, and noise unless mitigation is incorporated by using mitigation measures BIO-1, BIO-2, CR-1, CR-2, CR-3,HAZ-1, and NOISE-1 to reduce impacts to less-than-significant levels.

d) ***Less Than Significant Impact***. The project will require small amount of water for its concrete cutting operations that would be supplied by portable water tanks on construction vehicles. Thus the project would not require potable water use from existing water lines, and no new entitlements are necessary.

e) ***Less than Significant Impact.*** Under the potential pumped and treated groundwater scenario, as described in (a) above, the volume of wastewater that would be discharged to the sanitary sewer is not expected to significantly increase the West County Wastewater District treatment plant capacity of 8.9 million gallons per day. Impacts on sewer service would be less than significant and would not exceed the treatment provider's capacity commitments.

f, g) ***Less than Significant Impact.*** Solid waste generated during construction, primarily removed asphalt and concrete, would be properly disposed or recycled in a nearby landfill or disposal facility with capacity to receive the waste. Any hazardous materials used during construction would be properly disposed in accordance with federal, state, and local regulations. Impacts from solid waste generation would be less than significant.

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

Discussion of Impacts

a) ***Potentially Significant Impact Unless Mitigation Incorporated.*** The project could potentially affect nesting birds if constructed during the nesting season. Mitigation Measures BIO-1 and BIO-2 would reduce this impact to a less-than-significant level. The project would have less than significant impacts to natural habitats and federally or state-listed species. Impacts on wildlife and waters of the US would be less than significant. The project has a high potential to affect known historical resources and buried cultural deposits or human remains. Implementation of mitigation measures CR-1, CR-2, and CR-3 would reduce impacts on cultural resources to less-than-significant levels.

b) ***Less Than Significant Impact.*** The project includes construction measures and environmental conditions to minimize the temporary impacts of construction activities, and no long-term adverse impacts are anticipated. With these measures, the project would result in individually minor impacts and would not contribute substantially to cumulative impacts on any resource, resulting in a less-than-significant impact.

c) ***Potentially Significant Impact Unless Mitigation Incorporated.*** During the construction phase the project could result in a variety of temporary impacts on human beings. Potential adverse effects would be related to temporary increases in noise at nearby residences, and construction worker exposure to hazardous petroleum hydrocarbons in soil vapor during excavation and trenching. However, implementation of construction measures, environmental conditions, and mitigation measures HAZ-1, and NOISE-1 would ensure these impacts are less than significant.

Chapter 4. Determination

This Initial Study has determined that the proposed project would result in potentially significant impacts for the resources checked below. This Initial Study includes mitigation measures that would avoid or minimize potentially significant impacts to less than significant levels.

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

On the basis of this initial evaluation:

☐ I find that the project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the 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 project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the 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 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	Date
Printed Name	Lead Agency

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Chapter 5. Report Preparation and References

5.1 Report Preparation

City of San Pablo Public Works / Engineering Department – CEQA Lead Agency

Barbara Hawkins, City Engineer
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Water Works Engineers

Mike Fisher, P.E., Project Manager
Jigar Shah, P.E., Project Engineer

North State Resources, Inc.

Mark Wuestehube, Project Manager
Althea Asaro, Cultural Resources Specialist
Nick Eide, Biologist
Jed McLaughlin, Environmental Analyst
Leticia Morris, Biologist
Anna Starkey, Cultural Resources Specialist

5.2 References

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APPENDIX A

Mitigation Monitoring and Reporting Plan

Mitigation Monitoring and Reporting Plan
for the
Randy Lane Drainage Improvement Project

City of San Pablo Public Works/Engineering Department
(CEQA Lead Agency)

May 2017

Mitigation Monitoring and Reporting Plan for the Randy Lane Drainage Improvement Project

Introduction

Purpose

The City of San Pablo Public Works / Engineering Department (City) has prepared an Initial Study (IS) and Mitigated Negative Declaration (MND) for the proposed Randy Lane Drainage Improvement Project (proposed project). The City is planning to install a new storm drain and outfall into San Pablo Creek to alleviate flooding concerns along Randy Lane in the western portion of San Pablo. The proposed project is described in more detail in the IS/MND.

As described in the IS/MND, the project itself incorporates a number of environmental conditions to minimize adverse effects on the environment. The following environmental conditions will be contract provisions:

- Identify locations of other existing underground pipelines in the proposed alignment and take necessary precautions to avoid damaging the pipelines or interfering with their service. Notify the pipeline owner of any encroachment on or disturbance to their pipeline.
- Notify and coordinate with law enforcement and emergency service providers prior to the start of construction to ensure minimal disruption to service during construction.
- Follow all safety and health requirements set forth by the Occupational Safety and Health Administration.
- Prepare and implement a fire safety plan to prevent fires from construction operations (such as welding).
- Use traffic cones, signs, lighted barricades, lights, and flagmen as described and specified in the Manual of Uniform Traffic Control Devices, current edition, California Supplement, Part 6 Temporary Traffic Control to provide for public safety and convenience during construction.
- Provide detours at all times to allow emergency vehicles access around the work area.
- On a daily basis, cover, fence, and guard, as appropriate, open excavation and ditches across roadways in such a manner as to permit safe traffic flow during hours when no work is being performed and to prevent accidents from people or animals falling into the trenches.
- Restore pavement, curbs, gutters, and sidewalks, as necessary, to pre-disturbance conditions or better.
- Do not store or use hazardous materials, such as for equipment maintenance, where they could affect nearby residences or where they might enter creeks or ditches.

- Immediately contain and clean up all spills of oil and other hazardous materials and properly dispose of the hazardous materials at approved disposal facilities.

- Implement best management practices (BMPs) during construction, in accordance with City of San Pablo Stormwater Management and Discharge Control Ordinance 8.40, which may include, but are not limited to:

  - use waddles or straw along slopes to prevent runoff from carrying pollutants off-site;

  - use gravel bags or gutter dams to prevent runoff from carrying pollutants into storm drains;

  - cover and contain dirt piles if erosion and sediment are a threat to any waterways;

  - stabilize site access points with rock to avoid tracking materials off-site;

  - use proper materials and waste storage, handling, and disposal practices;

  - use proper vehicle and equipment cleaning, fueling, and maintenance practices;

  - control and prevent discharge of all potential construction-related pollutants, such as slurry seal and asphalt oils; and

  - prepare a contingency plan in the event of unexpected rain or a control measure failure.

- Comply with Bay Area Air Quality Management District (BAAQMD) measures for reducing fugitive dust and exhaust emissions, including:

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

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

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

  - All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

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

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

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

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

- Project construction activities shall adhere to all of the following sound control measures:

  - Construction contractors shall be required to comply with the construction hour limitations and construction equipment standards set forth by the City of San Pablo.

  - The name and telephone number of a person for the public to contact to resolve noise-related problems shall be posted.

  - Construction activities shall be carried out with the minimum number of construction equipment or vehicles operating simultaneously at a given location.

  - No equipment will have an unmuffled exhaust.

  - Stationary construction equipment (e.g., generators, compressors) will be located as far from sensitive receptors (e.g., residences, schools, places of worship, hospitals) as possible.

  - If traffic control devices requiring electrical power are employed within 500 feet of sensitive receptors, the devices will be battery/solar powered instead of powered by electrical generators.

The IS/MND also identified seven mitigation measures that are required to reduce potentially significant impacts on biological resources, cultural resources, hazardous materials, noise, tribal cultural resources, and utilities to levels that are less than significant. This Mitigation Monitoring and Reporting Plan (MMRP) describes a program for ensuring that these mitigation measures are implemented in conjunction with the project. The City, as the lead agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this MMRP. The City will designate a staff member to manage the MMRP. Duties of the staff member responsible for program coordination will include conducting routine inspections and reporting activities, coordinating with the project construction contractor, coordinating with regulatory agencies, and ensuring enforcement measures are taken.

Regulatory Framework

California Public Resources Code Section 21081.6 and California Code of Regulations Title 14, Chapter 3, Section 15097 require public agencies to adopt MMRPs when they approve projects under an MND. The MMRPs must be adopted when a public agency makes its findings pursuant to CEQA so that the mitigation requirements can be made conditions of project approval.

Format of This Plan

The MMRP identifies the impacts and mitigation measures from the project IS/MND. Each impact discussed within this MMRP is numbered based on the sequence in which it is discussed within each of the environmental categories in Chapter 3 Initial Study Checklist. The impact number corresponds with the specific mitigation measures. Mitigation measures are followed by an implementation

description, the criteria used to determine the effectiveness of the mitigation, the timeframe for implementation, and the party responsible for monitoring the implementation of the measure.

Implementation of mitigation measures is ultimately the responsibility of the City; during construction, the delegated responsibility is shared by City contractors. Each mitigation measure in this plan contains a "Verified By" signature line, which will be signed by the City project manager when the measure has been fully implemented and no further actions or monitoring are necessary for the implementation or effectiveness of the measure.

Impacts and Associated Monitoring or Reporting Measures

Impact BIO-1: **Potential impacts on nesting migratory birds and raptors during project construction.**

Mitigation Measure BIO-1: Conduct pre-construction nesting bird surveys.

If construction is to occur during the nesting season (i.e., nesting season is February 15 through August 31), a qualified biologist shall conduct a pre-construction survey of the project area and a 250-foot buffer, as access is available, to search for active bird nests. If a lapse in construction activities for 14 days or longer occurs, another pre-construction survey will be performed.

If active nests are found during the pre-construction survey, the City will coordinate with a qualified biologist to identify protection measures such as establishment of a construction-free buffer zone around the nest tree. No construction activity will be conducted within the buffer zone during the nesting season or until such time that the biologist determines that the nest is no longer active or nesting activity would not be disrupted. Where practicable, the buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer zone and will avoid entering the buffer zone during the nesting season.

Implementation: The City will ensure its contractor implements the measures described above.

Effectiveness Criteria: The City will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Pre-construction Phase and Construction Phase

Verified By: _____ Date: _____
City Project Manager

Impact BIO-2: **Potential adverse effects on federally protected wetlands as defined by Section 404 of the Clean Water Act during construction**

Mitigation Measure BIO-2: Avoid adverse impacts to San Pablo Creek.

Activities within the channel of San Pablo Creek will be limited to the dry/low flow season to minimize the potential for erosion, and will be kept to the minimum area necessary to perform work. Appropriate measures (e.g., catch basin, construction mats, spill prevention plan) will be implemented to ensure that materials removed during cutting of the concrete wall and pollutants associated with construction equipment (e.g., oil, fuel, grease) do not enter the creek channel. Following completion of activities in San Pablo Creek all construction materials (e.g., equipment, debris) will be fully removed; and all areas that were temporarily disturbed will be restored, as close as practicable, to their original contour and conditions.

Prior to any activities within San Pablo Creek, notification of streambed alteration shall be submitted to the CDFW. If required, a streambed alteration agreement shall be obtained from the CDFW and all conditions of the agreement shall be implemented.

Prior to any discharge of dredged or fill material into waters of the United States (e.g., discharge associated with construction of water diversion), the required permits/authorizations shall be obtained from the USACE and the RWQCB. All terms and conditions of the required permits/authorizations shall be implemented.

Implementation: The City will ensure the contractor implements BMPs to prevent construction materials and debris from entering the creek channel, and restores any temporarily disturbed areas. The City will notify CDFW of streambed alteration, obtain any required permits/authorizations from CDFW, USACE, and the RWQCB, and ensure that all permit terms and conditions are implemented.

Effectiveness Criteria: The City will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Pre-Construction Phase and Construction Phase

Verified By: _____ Date: _____
City Project Manager

Impact CR-1 and CR-2: Potential to cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.

Mitigation Measure CR-1: Conduct subsurface archeological testing.

A project-specific subsurface archaeological testing program shall be developed by a qualified archaeologist in order to determine if significant cultural materials are present in the project alignment along Randy Land and Giant Road. Archaeological testing may consist of the excavation of shovel test pits, auger probes, and/or core borings. The testing plan shall be submitted to the City for review and approval prior to implementation. If significant intact archaeological deposits or human remains are found and cannot be avoided, data recovery and a Burial Treatment Plan will be implemented as necessary. In the event that data recovery and/or a Burial Treatment Plan is needed, the City will coordinate with the project owner(s) and the most appropriate and interested tribal organizations as necessary. During all subsurface investigations, measures required to address any hazardous material concerns will be implemented as necessary (see section VIII. Hazards and Hazardous Materials).

Mitigation Measure CR-2: Archeological monitoring.

A qualified professional archaeologist shall monitor all ground-disturbing activities along Randy Lane and Giant Road. The monitoring archaeologist shall be provided with the authority to halt any construction activities if any cultural materials are discovered until the significance of the find has been assessed and appropriate conservation measures have been implemented.

Implementation: The City will retain the services of a qualified archeologist to conduct pre-construction testing and monitoring during construction and will ensure its contractor implements the measures described above.

Effectiveness Criteria: The City will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Pre-Construction Phase and Construction Phase

Verified By: _____ Date: _____
City Project Manager

Impact CR-3: Potential to disturb and damage human interments

Mitigation Measure CR-3: Accidental Discovery.

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery during construction, the City and its construction contractor(s) will take the following steps:

(1) No further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie adjacent human remains will occur until:
   A. the coroner has been contacted to determine that no investigation of the cause of death is required, and
   B. if the coroner determines the remains to be Native American:
      1. the coroner shall contact the Native American Heritage Commission within 24 hours;
      2. the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendant from the deceased Native American; and
      3. the most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in Section 5097.98 of the Public Resources Code; or

(2) Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance:
   A. the Native American Heritage Commission is unable to identify a most likely descendant or the most likely descendant fails to make a recommendation within 24 hours after being notified by the commission;
   B. the most likely descendant identified fails to make a recommendation; or
   C. the landowner or his or her authorized representative rejects the recommendation of the most likely descendant, and mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Implementation: The City and its construction contractor(s) will implement the measures described above.

Effectiveness Criteria: The City will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Construction Phase

Verified By: _____ Date: _____
City Project Manager

Impact HAZ-1: Potential health risk hazard to construction workers from contaminants migrating from nearby hazardous material release site.

Mitigation Measure HAZ-1: Protection from worker exposure to potentially contaminated soil vapor during ground-disturbing activities

To address the potential health risk of workers being exposed to soil vapors which may be encountered while excavating the trench lines, the contractor should be prepared to measure VOCs such as benzene associated with petroleum product by using a field photoionization detector or equivalent field meter capable of measuring VOCs in air. Based on a positive detection, the contractor shall implement the following measures to reduce impacts to less than significant levels:

- Provide workers with personal protective equipment suitable to resist exposure to the detected VOCs, such as air-purifying respirators equipped with appropriate VOC-filtering cartridges.

- Prepare a site safety and health plan (SSHP) pursuant to 29 CFR 1910 and the *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities* for worker safety and characterization of petroleum-contaminated soils. The SSHP would include hazardous materials and waste training requirements for any personnel that could be exposed to elevated concentrations of VOCs in soil vapor, soils, or groundwater. The SSHP would keep occupational exposure within prescribed limits and to prevent the migration of contaminants beyond the site boundaries (a Cal-OSHA requirement for work at hazardous waste sites).

- Cover stockpiled soil removed from the trench with plastic sheeting, and collect one 4-point composite sample for each 50 cubic yards of stockpiled soil for laboratory analysis for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, and VOCs, using EPA test methods 8010 and 8260 or equivalents. Soils with detectable concentrations below State of California Environmental Screening Levels (ESLs) that cannot be used on site must be treated to non-detect levels or disposed at a permitted petroleum-contaminated soil disposal facility, such as a Class II or Class III solid waste landfill that is permitted for this purpose. Each soil disposal facility has its own acceptance criteria, so additional characterization testing may be required. Soils with concentrations above ESLs should be removed by personnel having a Class A general contractor's license with hazardous materials rider and 40-hour Hazwoper training, and disposed at appropriate licensed facilities. The County will retain a qualified archaeologist to monitor ground-disturbing activities associated with the proposed project and will require its contractor to implement a cultural resources and burial treatment plan in the event of discovery of cultural resources. The qualified archaeologist will prepare the plan in coordination with the County, Caltrans archaeologist, and Native American tribe(s) interested in the project. The plan will describe specific measures to evaluate and re-bury potential artifacts, human remains, or other cultural resources exposed during ground disturbance.

Implementation: The City's contractor will implement the measures described above.

Effectiveness Criteria: The City will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Construction Phase

Verified By: _____ Date: _____
City Project Manager

Impact NOISE-1: **Construction activities would increase noise levels temporarily in the vicinity of the project area and may periodically exceed the San Pablo Municipal Code, Section 7.15.40 construction noise standard.**

Mitigation Measure NOISE-1: Construction Noise

Within the City, construction zones which are located within 400 feet of a residential, church, or school property line shall adhere to the following restrictions:

- Trucks or other equipment supporting the construction effort shall not use audible back-up warning devices but shall instead employ an outside observer to guide backing maneuvers of such trucks and equipment.
- Construction support trucks and equipment shall not be left idling during loading and unloading activities.
- High noise-generating activities including saw cutting, jack hammering, and trench excavation shall not be conducted simultaneously within 200 feet of other.
- Jack-hammering shall be limited to no more than 10 minutes of any hour, at each specific location, and shall not be conducted within 200 feet of another jackhammering location.
- For rock sawing or trenching operations, which would involve trencher, trucks, backhoes, and other equipment associated with trench installation, temporary noise barriers with a sound transmission class rating of at least 25 shall be erected and maintained between rock sawing operations and any vicinity residential, church, or school property line to limit noise levels to 65 dBA at 50 feet.

Implementation: The City's contractor will implement the measures described above.

Effectiveness Criteria: The City will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Construction Phase

Verified By: _____ Date: _____
City Project Manager