

*San Ramon Canyon Storm Drain Tunnel Project
SCH # 2011071084*

*NEPA Environmental Assessment and Finding
of No Significant Impact*

*CEQA Initial Study and Mitigated Negative
Declaration*

City of Rancho Palos Verdes, California

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Appendices

CEQA NEPA Initial Study Checklist (Attached to EA/MND)

1. Site Plans
2. Maps
3. Biological Resources
4. Cultural Resources
5. Geologic Resources
6. Hydrologic Resources
7. Visual Resources
8. Hazardous Materials
9. Public Consultation
10. Alternatives

This report is intended only for the use of Harris and Associates, in care of the City of Rancho Palos Verdes, and should not be relied upon by other parties without the express written consent of SFC Consultants. The findings are relevant to the dates of our site work and should not be relied upon to represent site conditions on other dates



1.0 Introduction

In October 2010, *SFC Consultants (SFC)* completed an expanded CEQA Initial Study for six (6) different storm drain alignments and tunnel alternatives for San Ramon Canyon drainage. Adverse impacts associated with each alternative were reviewed, and a preferred alternative was selected by the City of Rancho Palos Verdes. This proposed storm drain tunnel alignment project is the preferred alternative which will be analyzed under both CEQA and NEPA guidelines.

This Draft MND/FONSI addresses the general storm drain backbone canyon design, landslide creep, new ocean outfall, and the environmental impacts associated with them. This backbone system will augment the existing system which currently drains San Ramon Canyon into the storm drain below W. 25th Street in the City of Los Angeles, flows under the homes and golf course to the south, and discharges via an existing outlet pipe in the bluff and ocean. This existing storm drain and outlet is currently permitted by the City of Los Angeles Municipal Storm water Permit administered by the LA County Flood Control District. The existing system will remain in place and function as a back-up overflow system. The City anticipates that the existing ocean discharge system will only be needed during very heavy rains as a secondary or back-up device.

The objectives of this document is to review and address environmental impacts associated with the planning, construction and operation of storm drain and tunnel improvement designed to convey the 100-year storm flood flows from San Ramon Canyon. Environmental mitigation measures have been incorporated in the project description.

The City of Rancho Palos Verdes, in compliance with the California Environmental Quality Act (CEQA) as amended, and National Environmental Protection Act (NEPA) as amended, requires CEQA/NEPA documentation consistent with the Project Study Report for the drainage of San Ramon Canyon. The NEPA portion of the document has been included because of the potential for Federal financial assistance. As such, this environmental document will be a combination of both State and Federal environmental review requirements. The NEPA portion of the document will include several alternatives that were outlined in the original Initial Study and cumulative impacts as applicable.

This document has been prepared in compliance with the California Environmental Quality Act of 1970 (CEQA), as amended (Public Resources Code, Section 21000, et seq.), and the State Guidelines for Implementation of the California Environmental Quality Act of 1970 (California Code of Regulations, Title 14, Section 15000, et seq.), as amended in 2010. This report also generally complies with the rules, regulations, and procedures for implementation of the California Environmental Quality Act adopted by the City of Rancho Palos Verdes.

CEQA

A Mitigated Negative Declaration (MND) is the appropriate CEQA document based on CEQA Article 6, Section 15070(b)1, Decision to prepare a Negative Declaration. This CEQA section states the following:



Section 15070(b)1

A proposed negative declaration shall be prepared for a project subject to CEQA when the initial study identified potentially significant effects but:

- ✓ *Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.*

NEPA

An Environmental Assessment and Section 4(f) evaluation with Findings of No Significant Impact (FONSI) is required for compliance with NEPA Section 1508.9.

Section 1508.9

Concise public document for which a Federal agency is responsible that serves to:

- ✓ *1) Provide sufficient evidence and analysis for determining whether an EIS or FONSI is needed; 2) Aid an agency's compliance with the Act when no EIS is necessary; 3) Facilitate preparation of an EIR when one is necessary.*

This document was prepared by *SFC Consultants*, a qualified environmental consulting firm under contract to Harris & Associates, the consulting engineers for the project, who is under contract with the City of Rancho Palos Verdes. The City of Rancho Palos Verdes is the Lead Agent for the project as defined by Section 21067 of CEQA. This Initial Study was prepared under the direction of City staff and represents the independent judgment from the City. A copy of the Initial Study and its determinations are included in the Appendix. All environmental issues as identified by the City in the Initial Study and Environmental Assessment, and consistent with the California Environmental Quality Act and National Environmental Protection Act, will be analyzed in this MND/FONSI.

1.1 Project Location

The project area is located within the south eastern portion of the City of Rancho Palos Verdes, Los Angeles County, California. The site is generally bound by Palos Verdes Drive East (PVDE) on the west, Calle Aventura and Tarapaca Road to the north, Friendship Regional Park and the City of Los Angeles boundary to the east, and the Pacific Ocean to the south (Figures 1 and 2, Photo 1).

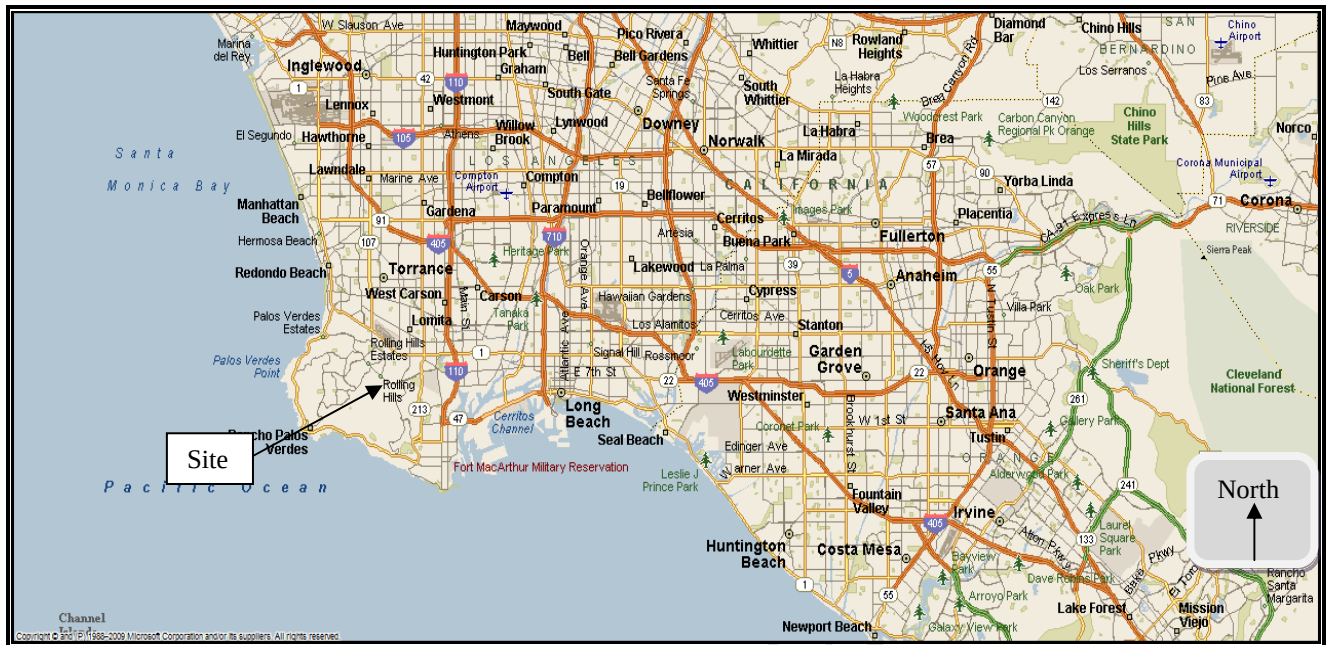


Figure 1: Regional Map

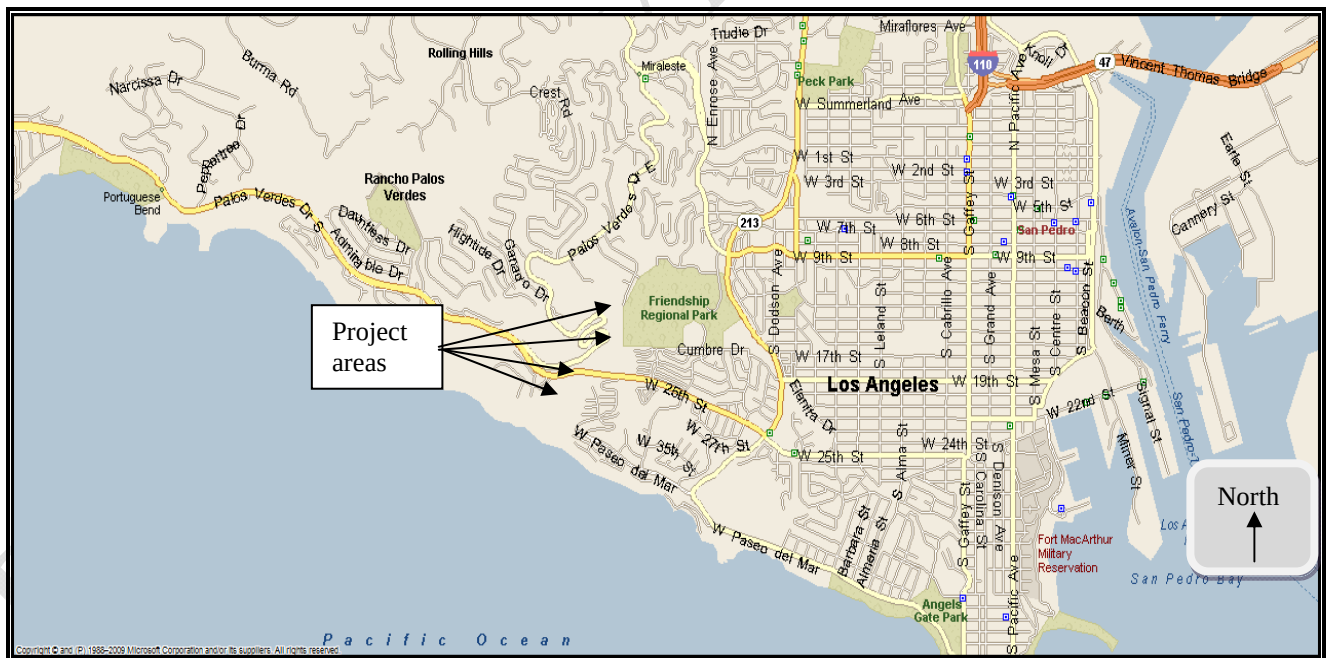


Figure 2: Vicinity Map



Photo 1 Aerial photo

1.2 Project Purpose and Need

The City of Rancho Palos Verdes has determined that the existing San Ramon Canyon drainage system does not work effectively. Flooding of the W. 25th Street area is primarily due to the existing clogged and buried storm drain inlet (Photo 2 below) which collects only a minimal amount of surface water during a storm event. The existing inlet structure is a 48-inch diameter pipe system. The resulting flow of water is forced to cross W. 25th Street/Palos Verdes Drive South (PVDS), carrying with it boulders, mud and other debris across the W. 25th Street roadway and into the mobile home properties to the south. For safety and to protect property, a new “backbone” drainage system for San Ramon Canyon is proposed. The project is an independent utility with logical termini. The San Ramon Canyon storm drain project is intended to serve a necessary drainage purpose to prevent degradation of topsoil, property damage, and avoid a hazard to public safety. Further, the storm drain project will minimize road closure of PV Drive South/W. 25th Street (one of only three major arterials that connect the City of Rancho Palos Verdes with the regional transportation system) during storm events.



Photo 2: View north up San Ramon Canyon from W. 25th Street. Existing storm drain inlet structure in foreground.

Erosion and flash flood episodes within San Ramon Canyon ranges from moderate to severe. Areas of severe erosion are generally in the area of the Tarapaca landslide and downstream (Photo 3). The episodic and active downslope movement of the Tarapaca landslide is forcing the flowline of the canyon to shift westerly, causing increased erosion of the western walls of the canyon. These canyon walls are directly downslope of the switchbacks of PVDE, in particular, the lower switchback (Photo 4). The PVDE switchbacks are a significant ingress and egress for residents, commuters and emergency personnel. Based on the geotechnical documentation, and discussed in more detail later in this document, the canyon walls are eroding at an average rate of about 5 feet per year. The existing slope face would only need to erode back approximately 35 feet before the road way would be in a state of imminent failure.

Moderate to severe erosion of the canyon walls and floor due to heavy flow of surface water and flash flooding during rains has caused deep cutting of the canyon, in some areas generating vertical cuts up to 30 feet in height (Photo 6). Instability of these cuts is triggering surficial failures and toppling of the vertical walls. Buttress filling of the canyon and the proposed storm drain will reduce the rate of erosion within the canyon, reduce the flow of water and debris down the canyon, and reduce the movement of the Tarapaca landslide.

In addition to providing needed storm drain capacity, another major project objective will be to reduce the depth and duration of flooding along San Ramon Canyon thus reducing the need for reoccurring maintenance by City crews to remove sediment and debris from the roadway, which is primarily due to the inadequate size of the existing inlet structure and debris basin, and inadequate size of portions of the existing storm drain pipe. This will also assist in achieving

the project goal, outlined below, of improving both emergency vehicle access and local residence access and safety both during and after storm events.



Photo 3: View from PVDE toward the east side of Canyon toward Tarapaca landslide.



Photo 4: Aerial view of San Ramon Canyon

1.3 Project Goals

- Protect the health, safety and welfare of the community from flooding events.
- Protect area families and property.
- Improve both emergency vehicle access and local residence access and safety, during and after storm events for W. 25th Street and from the PVDE switchbacks.
- Minimize reoccurring city maintenance by reducing depth and duration of flooding.
- Stabilize the Tarapaca landslide.
- Stabilize Palos Verdes Drive East switchbacks.
- Preserve the coastal bluffs and reduce erosion.
- Minimize local community impact during construction.

1.4 Project Description/Description of the Undertaking

The project undertaking would include a new mid-canyon storm drain inlet structure and tunnel alignment north of W. 25th Street that would gravity flow through the tunnel to a cut and covered section of buried pipe located south of W. 25th Street, and transition into a second tunnel to a new outlet structure at the base of the bluff. Total storm drain alignment is approximately 4,200 lineal feet of 54" diameter pipe from inlet to outlet. Total tributary area draining into the new storm drain would be 123.7 acres. The existing 48" storm drain below W. 25th Street would remain in place and serve as backup as necessary. No improvements or cleaning are proposed to the existing storm drain system, which is located in the City of Los Angeles. A more detailed description of the undertaking and photos are provided below. Post construction photo simulations are included in the visual resource section 2.9.



Photo 5: View northeast toward mouth of San Ramon Canyon from W. 25th Street/PVDS.



Photo 6: View north up San Ramon Canyon, western wall of canyon.

Detailed Description of the Undertaking/Project

Inlet Structure. The inlet structure and storm drain project would be designed to handle existing upstream flows for a 100-year storm event. It would also provide for a restored streambed, taking advantage of infiltration and biological pollutant uptake available in the new riparian system and lower canyon area. Excavation of the inlet structure improvements would require approximately 1,250 cubic yards (cy) of fill, approx. 660 cy of cut, and encompass approx. 200 lineal feet of the canyon. These excavation quantities include a small amount of hand trenching needed for a terrace drain along the eastern canyon slope adjacent to the inlet structure. Figure 3 below provides an engineering plan and profile for the inlet structure. Larger scale plans are attached to the appendices for convenience. These plans help to show the depth of canyon fill needed to not only direct storm flows into the new tunnel system, but provide canyon wall buttressing, as discussed below.

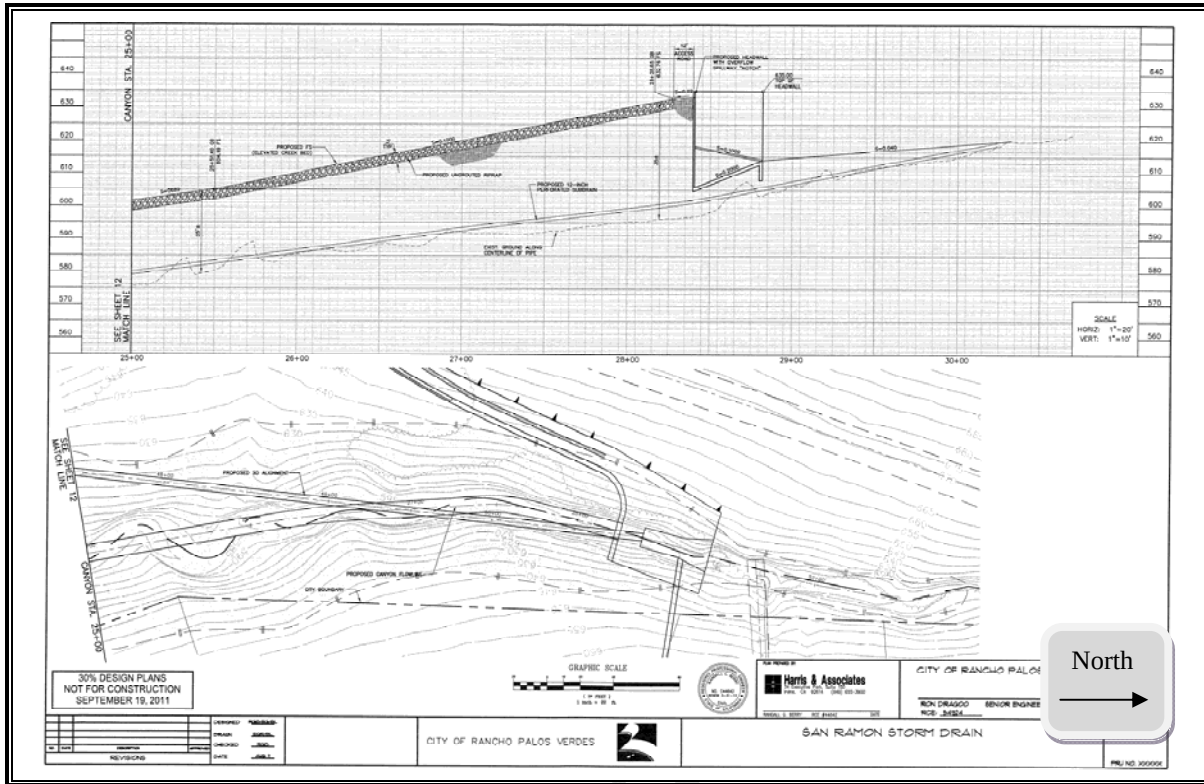


Figure 3: Inlet Structure plan and profile.

Buttress Fill. In addition to construction of the inlet structure in the canyon and tunnel, a dirt filled gravity-type buttress and associated terrace drains would be constructed within the canyon in order to reduce the potential for future deep-seated movement within the actively failing portion of the canyon that is caused by the active Tarapaca landslide. This gravity buttress will be created by filling portions of the canyon floor approximately 20 to 30 feet in depth from the inlet structure, to a point downstream of the existing Tarapaca landslide area for a distance of approximately 900-feet, tapering down to join the existing canyon bottom (Figures 4 and 5, Photos 6, 7, 8 and 9).

Approximately 51,000 cy of excavated fill will be needed and will primarily come from the tunnel spoils. The resulting surface area of fill will be approximately 2.75 acres. The fill will be placed on a thin drainage layer of crushed rock, with a filter fabric layer to prevent the fine particles from clogging the sub-soil drainage system. The canyon fill will be placed in engineered layers to lock it into the existing canyon walls. Un-grouted rip rap will be placed into the new, elevated, stream-bed and the flattened slopes will be hydro-seeded with an approved native plant mix in combination with jute mesh, fiber roles and other recommended erosion control measures that will allow the plants time to establish a root system. This filled canyon area will ultimately become the mitigation area for re-establishment of jurisdictional impacts and other plant species impacted during construction. This mitigation will be monitored through a Landscape Establishment Conformance Plan, and is described in further detail in Section 3.0.



Photo 7: View south down San Ramon Canyon near buttress fill area.

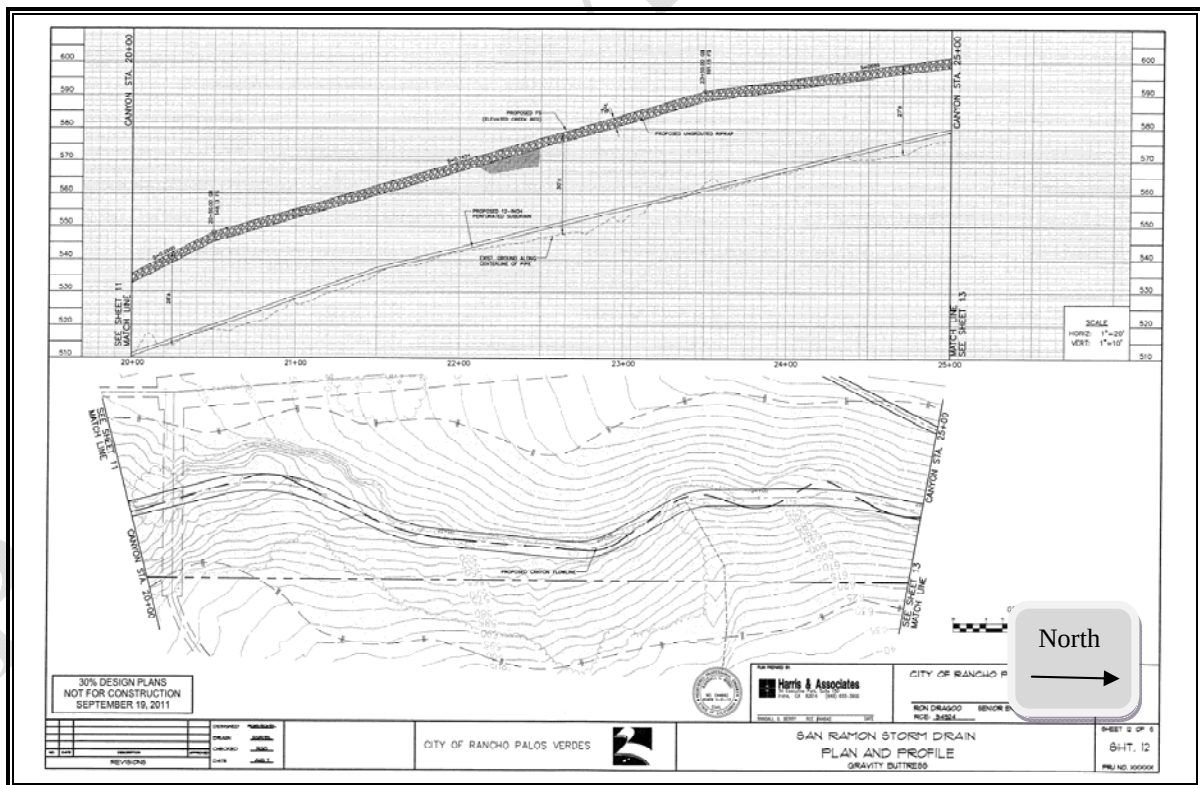


Figure 4: Buttress fill plan and profile.



Photo 8: Before photo of buttress fill location. View north up San Ramon Canyon.



Photo 9: After Photo simulation of buttress fill and established re-vegetation.

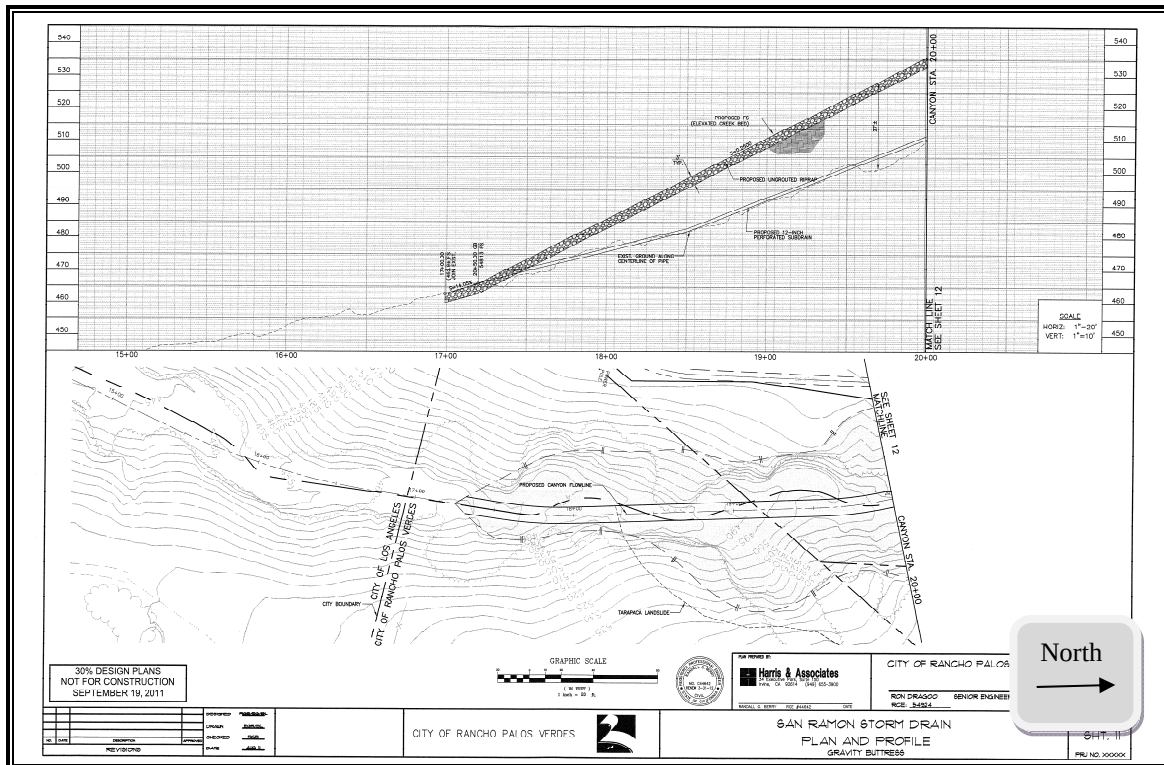


Figure 5: Canyon fill terminus plan and profile.

Construction Access Roads north of W. 25th Street. This project would require construction of two access roads north of W. 25th Street in order to access the canyon. The first access road location was developed after several alternative storm drain alignments. Construction access to the canyon from the east would require significant remedial grading due to the location of the Tarapaca Landslide.

The first access road would be constructed from the northern-most switchback of PVDE in order to access the canyon for construction of the inlet structure. This access road would be approximately 350-feet in length and, due to the steepness of the slope, would be stabilized in place utilizing a retaining wall. Approximately 2,400 cy of cut and 500 cy of fill will be required for the permanent access road. The retaining wall would vary in height from 0-feet at the access road entrance at PVDE, to a maximum of 12.5-feet midway down the slope. Immediately behind the retaining wall will be a 2-foot gutter with wall drain and pipe dome per Caltrans standards. The access road itself is proposed to be 17-feet in width which includes 14-feet of road, 2-feet of K-rail on the downward slope side of the road, and 1-foot of shoulder on the downward slope side of the k-rail. The access road would gently slope westward, away from the canyon, so that no storm water flows directly over the road and into the canyon. Over excavation of the canyon wall will be required in order to properly place the retaining wall and associated access road appurtenances. Excavated dirt would then be replaced at no greater than a 2:1 slope. Retaining wall and access road detail in Figures 6 and 7.

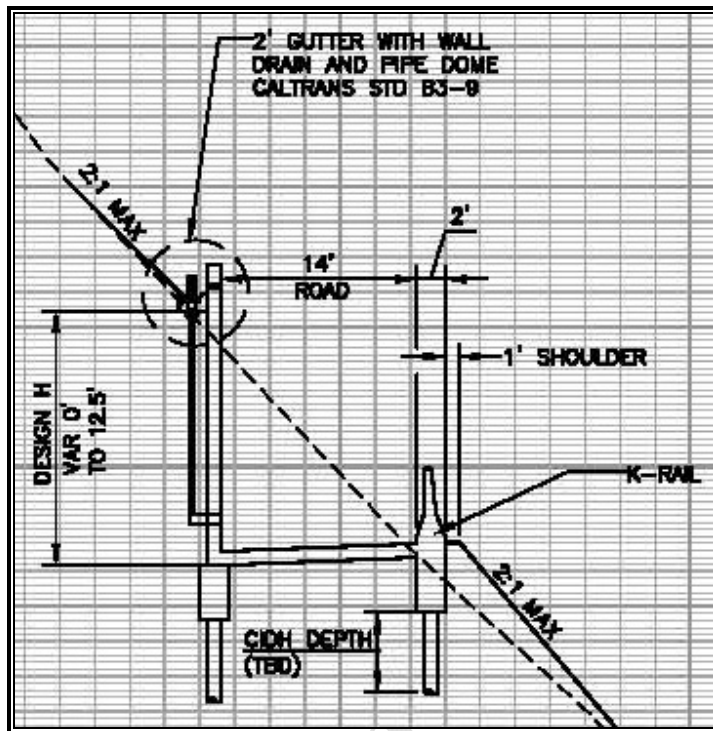


Figure 6: Perm. access road cross section.

Because of the extensive engineering and construction required of this access road and retaining wall, this first access road would be subsequently paved after construction with neutral colors and serve as the permanent maintenance road for the City. The permanent access road must be paved in order to avoid uncontrolled infiltration of water into the canyon from storm events and to support maintenance of the inlet.

The second construction access road was chosen due to the minimal amount of grading that would be required due to the existing underground sewer line easement in the same location. Therefore, the second access road would be located on the southern side of the southern-most switchback of PVDE, and provide temporary access for the buttress fill portion of the project. Access from this location will be considerably easier and require little or no grading. Construction vehicles will be able to travel over the existing terrain. At the project's completion, this second temporary access road would be re-vegetated with the native mix hydro seed. Construction of both access roads would likely coincide with commencement of the tunnel drilling operations.

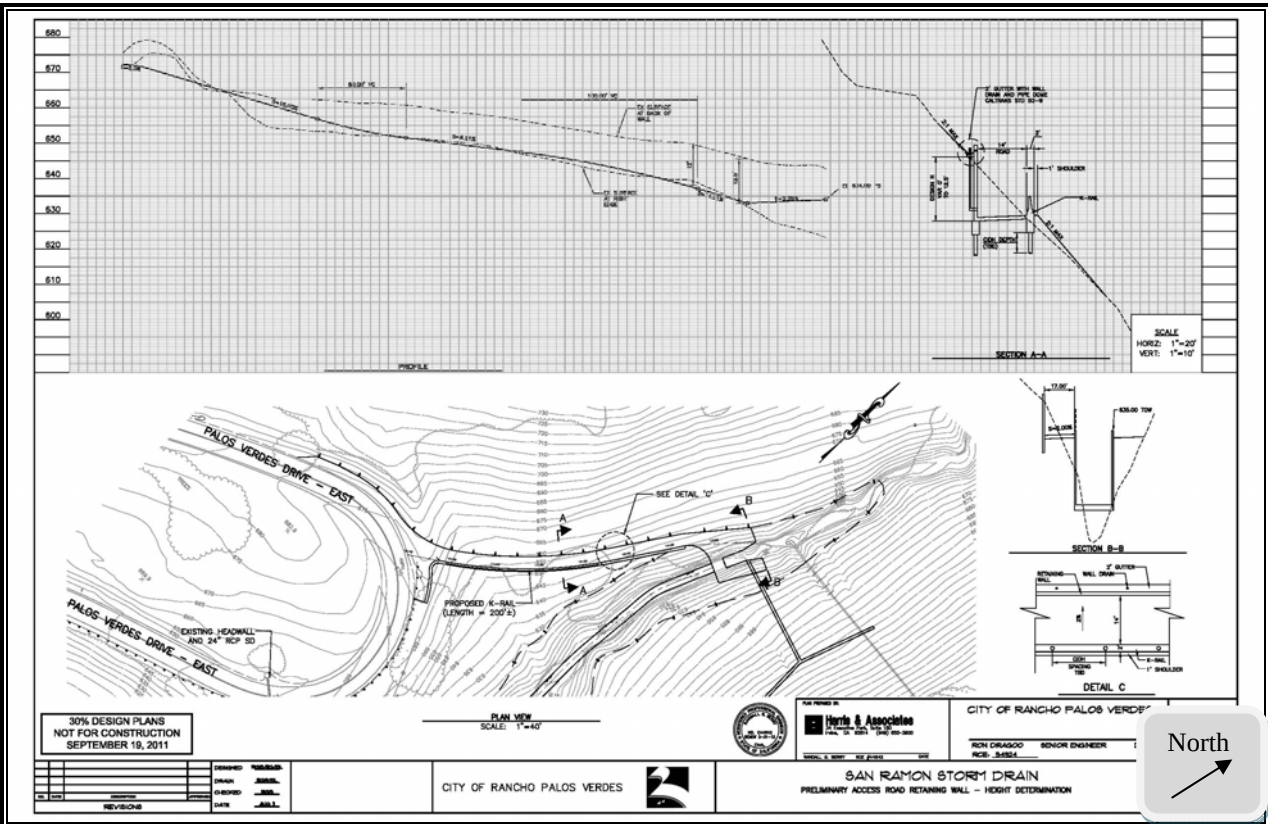


Figure 7: Permanent Access road plan and profile.

Tunnel and Cut and Cover Pipe. A large diameter tunnel will be constructed from the inlet structure to a point below the steep slopes, south W. 25th Street, approximately 1,900 feet in length. Approximately 3,000 cy of dirt will be cut for the tunnel and used in the buttress fill. A pipe will be installed in this tunnel and the annular space between the pipe and tunnel will be filled by pumping a cement-slurry into the space. The pipe from the storm drain tunnel will connect to a section of pipe that will be installed using a cut and cover method of installation (Figure 8, Photos 10 and 11). The cut and cover pipe extends approximately 1,900 feet to a point just a couple of hundred feet from the ocean bluff top where it will connect to another tunnel, approximately 300 feet in length, to the outlet structure (Figure 9, Photos 12, 13 and 14). The cut and cover pipe section will be located within the existing 100' wide utility easement and required approximately 7,090 cy of excavated cut. After construction, this area will be restored to enhance the open space and recreation uses in this area.



Photo 10: View north toward 100' wide easement, cut and cover area.



Photo 11: View south toward 100' wide easement, cut and cover area.

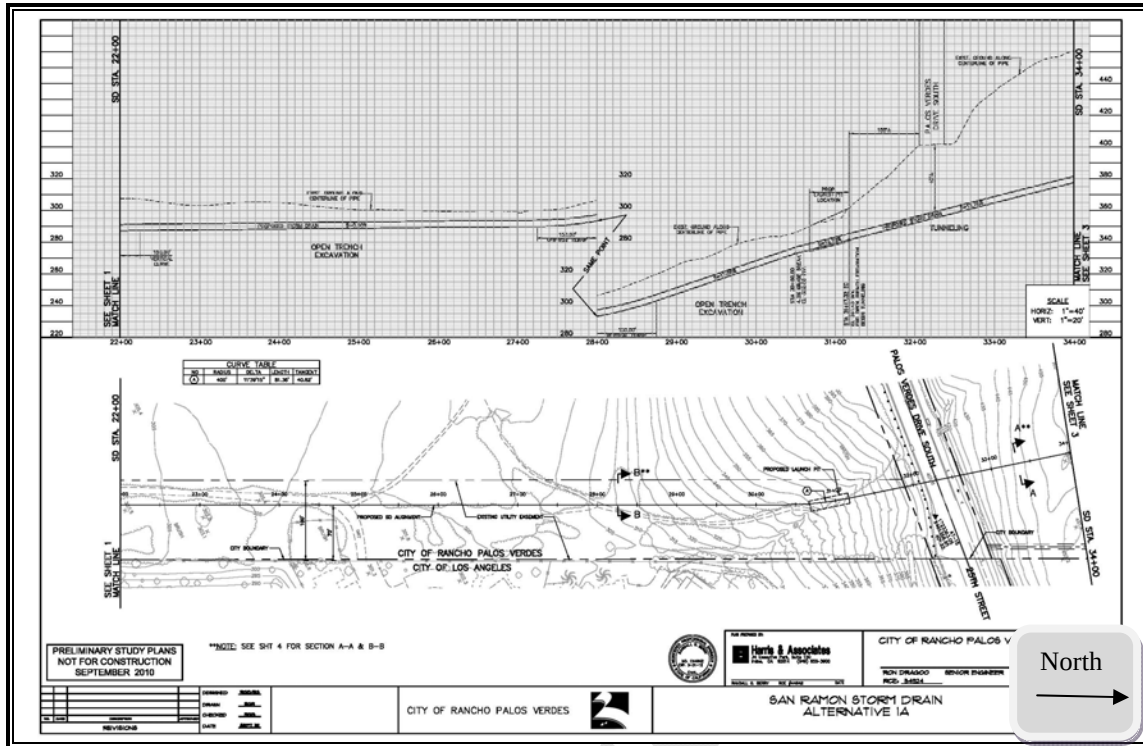


Figure 8: Cut and cover lower trench plan and profile.

Outlet Structure. The outlet structure would be located above the high tide line and connected from the second tunnel, approximately 300 feet in length. Excavation of 660 cy of cut and 285 cy of fill are anticipated for the outlet structure. The beach apron will include large beach boulders to dissipate flow velocities and protect the beach from erosion. Construction related runoff will be confined to the beach and will not enter the ocean. Planned access to the outlet structure for construction is discussed in further detail below.



Photo 12: View of coastal bluff near outlet area. Facing west.

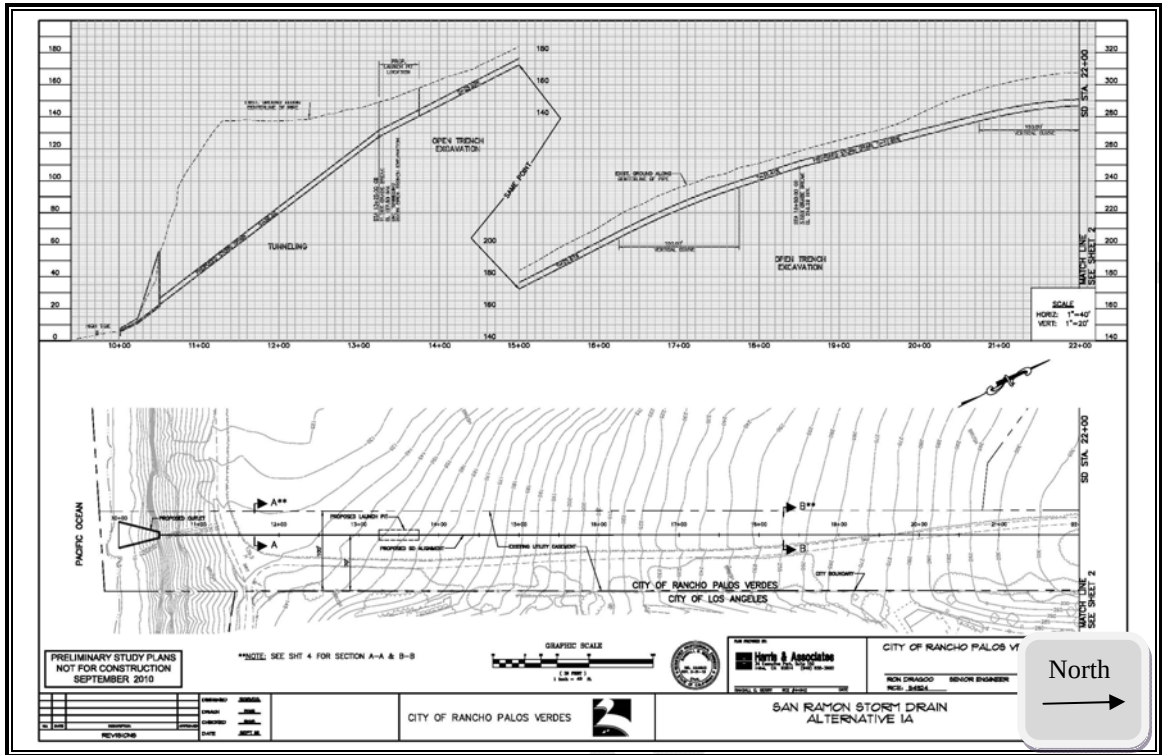


Figure 9: Lower tunnel and outlet structure.



Photo 13: Outlet structure photo simulation.



Photo 14: Existing outlet structure for McCarrell Canyon storm drain.

Construction Access south of W. 25th Street. Construction access south of W. 25th Street/PV Drive South (PVDS) will come through an existing utility road from the adjacent mobile home park to the east. The City and contractor will be required to obtain permission from the trailer park association for access through their community from W. 25th Street. Preliminary discussions between the City and the mobile home park association have indicated a willingness to accommodate the access. However, if permission cannot be obtained, secondary access to this area can be accommodated via W. 25th Street/PVDS. In this second access scenario, the existing trail within the utility easement would be graded into gentle switch backs to allow construction equipment to access this section of the storm drain. However, regardless of where construction access is obtained, after construction of the storm drain project, the switch back trail will remain as a public access casual trail that creates a gateway to this open space parcel (Figure 10). The finished trail will be consistent with the City-wide NCCP and would be located wholly within the existing 100-foot wide utility easement.

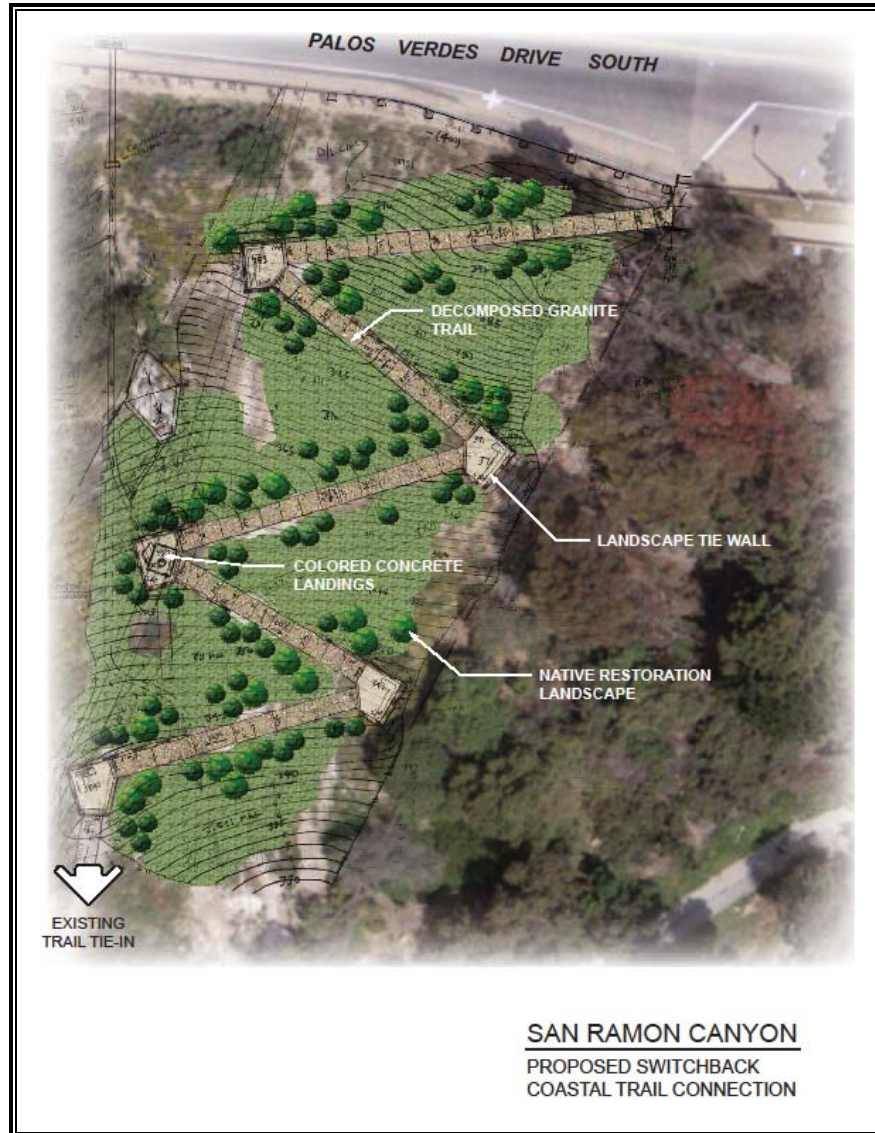


Figure 10: Trail and construction access switchback.

Construction of the outlet structure will require access from the Royal Palms State Beach in San Pedro, California (Photo 15). The park is approximately 1 mile south of the project. Access from this park would follow the beach line at low tide. No grading will be required for construction equipment to travel along the shore. The project will not extend into the coastal waters, and no impacts to fish or wildlife are expected to occur with the implementation of Best Management Practices by the contractor during construction.

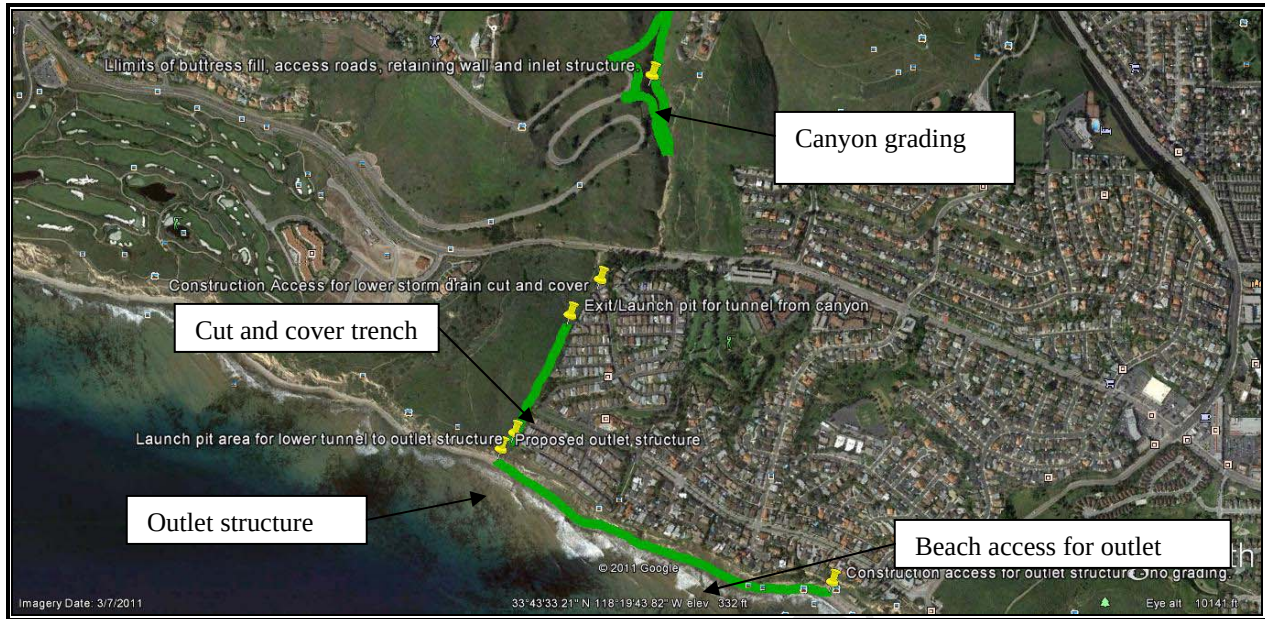


Photo 15: Areas of project access and impacts.

Construction Staging. Construction staging would occur within the existing 100' wide utility corridor south of W. 25th Street near the proposed lower tunnel launching pit. A smaller staging area will be located near the northern PVDE switchback where the first canyon access road will be located.

Traffic Control. Traffic control measures during construction will be implemented to maintain continuous through-traffic and emergency access on Palos Verdes Drive East and along W. 25th Street/PVDS.

Construction Schedule. Construction of the entire project is estimated to take approximately 17 months from completion to end. The tunneling portions of the project would likely start first, both at the bluff and at the launch pit just south of W. 25th Street. Construction of the outlet structure will be predicated on avoiding high tides and seasonal storms. Drilling would continue northward to the inlet structure location. Tunneling operations typically start at the lowest elevation to take advantage of gravity for the dirt spoils. The access roads and buttress fill areas will commence when the tunneling is complete.

Excess Excavated Materials. It is anticipated that much of the excess spoils from tunneling operations would be used for the buttress fill needed in the canyon. Excess excavated materials that cannot be used due to the dirt quality, or is not needed, would be disposed of by 3rd party dirt brokers. No excess dirt will be deposited on the beach.

Operation and Maintenance after Construction. Future maintenance of the facility after construction will follow measures covered in the City's NCCP section 5.4.

TABLE 1

Excavation quantities

Location	Lineal Feet	Cut CY	Fill CY
Canyon Inlet Structure	200 ft.	660cy	1,250 cy
Canyon Tunnel	1,900 ft.	3,000 cy	-
Buttress Fill and Terrace drains	900 ft.		50,110 cy
Access/maintenance road	350 ft.	2,400 cy	500 cy
Lower trench for cut and cover section of buried pipe	1,900 ft.	7,090 cy	-
Lower Tunnel	300 ft.	Included in canyon tunnel quantity.	-
Outlet structure	50 ft.	660cy	285 cy

1.5 Cumulative Effects

Consistent with NEPA requirements for cumulative analysis, cumulative impacts shall be discussed where they are significant and reflect the level and severity of the impacts and the likelihood of occurrence, but not in as great a level of detail as that necessary for the project alone. Cumulative impacts are the results of incremental impacts on the environment from the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time (40 C.F.R. § 1508.7).

The City began analyzing cumulative effects of the project by reviewing the impacts of the Proposed Action and alternatives on the specific environmental resources presented in Section 2.0. The City then identified past, present, and reasonably foreseeable future actions that could contribute to cumulative effects on each resource, and defined an area of analysis and timeframe for the potential cumulative effects for each resource.

The City used a variety of sources to identify and collect information on past, present, and reasonably foreseeable actions in the project area that could contribute to cumulative effects. These include:

- ✓ City and County flood control and storm water reports
- ✓ City and/or County General Plans
- ✓ Project Hydrology Report
- ✓ Existing environmental documents

The City also contacted various public agencies by phone and in person in conjunction with projects that could contribute to cumulative effects.

- ✓ Los Angeles County Flood Control District, Department of Public Works
- ✓ City of Los Angeles Public Works Department
- ✓ California Department of Transportation.

As a result, the City concluded the following projects in the vicinity that were recently completed in the past 2 years and/or planned by either the City of RPV or the County of Los Angeles:

- ✓ San Ramon Sewer Relocation (sewer relocated adjacent to PVDS in 2011).
- ✓ San Ramon storm drain catch basin connection south of W. 25th Street.
- ✓ McCarrell Canyon Storm Drain (Past storm drain located north of San Ramon). Similar analysis and impacts.

1. Resources considered in the cumulative impact analysis.

The environmental resources listed in Table 2 (on page 34) were considered in the cumulative impact analysis, primarily because of their significance and applicability in this environmental information document.

- ✓ *Biological-Fish/Wildlife/Threat.-Endangered Species-Wetlands-Coastal Zone/Barrier Resources-Wild and Scenic Rivers-Protected Farmlands/Agriculture & Forestry Resources*
- ✓ *Cultural Resources/Native Americans/SHPO*
- ✓ *Geology/Soils/Liquefaction*
- ✓ *Hydrology/Water Quality-Floodplain/Storm Water-Sole Source Aquifer/Drinking Water Supplies*
- ✓ *Air Quality/GHG*
- ✓ *Noise*
- ✓ *Traffic/Circulation*
- ✓ *Land Use-Land-Water Conservation Fund-Env. Justice Geo. Assess./Relocation Impacts*
- ✓ *Visual Resources*
- ✓ *Hazardous Materials/Hazardous Waste*
- ✓ *Public Services/Utilities*

2. Define the geographic boundary or Resource Study Area (RSA) for each resource to be addressed in the cumulative impact analysis.

Hydrology/Water Quality-Floodplain/Storm Water-Sole Source Aquifer/Drinking Water Supplies-The RSA for assessing hydrologic impacts encompasses 123.7 acres of surface area for the project.

The RSA for assessing the balance of these impacts encompasses an area of approximately 5 acres. The estimated 5 acres includes 2.75 acres of permanent surface area after the buttress fill and access road.

3. Describe the current health and the historical context of each resource.

Each resource noted above has the same health and historical context and will therefore be assessed collectively in Table 2.

4. Identify the direct and indirect impacts of the proposed project that might contribute to a cumulative impact on the identified resources.

Although construction of the storm drain project will be completed within approximately 6 months, storm drain construction will not create direct or indirect impacts that might contribute to a cumulative impact to the resources listed in Section 1.5 #1 above. See Table 2 for cumulative and alternative impact comparison.

5. Identify the set of other current and reasonably foreseeable future actions or projects and their associated environmental impacts to include in the cumulative impact analysis.

The City's engineering consultant has analyzed the existing storm drain system through as-built plans from the Los Angeles County Flood Control District and has determined that the downstream storm drain system in the City of Los Angeles is insufficient to receive the flows from San Ramon Canyon, which has led to constant flooding and road closures of W. 25th Street during rain events. Major improvements would be needed by the City of Los Angeles to upgrade the existing storm drain system, as noted in Alternative #5.

6. Assess the potential cumulative impacts.

Based on the type of construction project, the cumulative impacts listed in Table 2 will be less than significant with mitigation incorporated.

Long term cumulative effects of the project will be beneficial to hydrology and flooding because the new storm drain will direct and channel storm flows into the storm drain, rather than down the canyon, across the street, and into adjacent residences.

7. Report the results of the cumulative impact analysis.

Based on the cumulative impacts reviewed in Table 2 for the affected resources, impact results are primarily considered

Less than significant with mitigation incorporated to:

- ✓ Hydrology/Water Quality
- ✓ Coastal Zone/Barrier Resources
- ✓ Fish/Wildlife/Threatened-Endangered Species/Wetlands

- ✓ Visual Resources
- ✓ Noise
- ✓ Traffic/Circulation
- ✓ Air Quality/GHG

Less than significant to:

- ✓ Land Use/Land-Water Conservation Fund
- ✓ Geology/Soils/Liquefaction
- ✓ Cultural Resources/Native Americans/SHPO
- ✓ Haz. Mat/Waste

No Impact to:

- ✓ Sole Source Aquifer/Drinking Water Supplies
- ✓ Wild and Scenic Rivers
- ✓ Protected Farmlands/Agriculture & Forestry Resources
- ✓ Env. Justice Geo. Assess./Relocation Impacts

Beneficial to:

- ✓ Floodplain/Storm Water

8. Assess the need for mitigation and/or recommendations for actions by other agencies to address a cumulative impact.

No additional mitigation, other than that listed in this document, is required by other agencies to reduce impacts to less than significant levels.

1.6 Proposed Funding Source

Project costs for the storm drain are approximately \$19-\$20 million. The City has been recommended on a draft list to receive funding from the Department of Water Resources for a Storm Water Flood Management Grant (Proposition 1E) in the amount of \$9.4 million (50% of the estimated cost). The City has to date, spent approximately \$1.5 million on various emergency repairs in this vicinity which will offset future storm drain construction costs. The City is prepared to fund the remaining \$8 million from other local, state and federal sources.

1.7 Alternatives Analysis

The requirement that alternatives be considered for a proposed action is required by NEPA. The alternatives discussed below were developed to meet the purpose and needs of the project by the City of Rancho Palos Verdes. Although all impacts with the proposed project are mitigated to less than significant levels, alternatives were also analyzed to avoid resource impacts to wetlands, floodplains, endangered species, etc.

Alternative 1: Up Gradient Storm Drain with Tunnel – This storm drain alternative is an upper-canyon inlet with “tunnel alignment”, similar to the proposed project. It has a tributary area of 98

acres that would outlet to the ocean. This option would connect the new system to the existing storm drain system at the head of the canyon (Figure 11). No landslide stabilization or buttressing of the canyon walls would be proposed, so the continued threat of deep-seated movement from the Tarapaca landslide would still be present. Erosion of the canyons walls may be slowed with the new storm drain, but not eliminated. This alignment is all within the City of Rancho Palos Verdes. Alternative 1 inlet structure would impact approximately 0.08 acres of jurisdiction drainage and 0.50 acres of Coastal sage scrub habitat, buckwheat-dominated. Any additional habitat impacts would be limited to grassland only. This alternative would also impact approximately 0.02 acres of bluff which consists of a small amount of Southern coastal bluff scrub. This alternative is consistent with applicable State, regional and local habitat conservation plans and programs but would have slightly greater biological impacts.

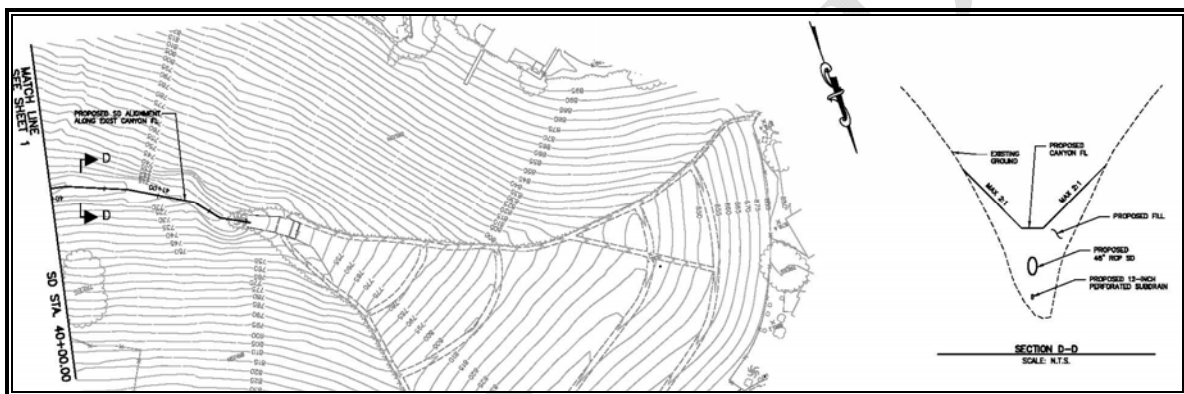


Figure 11: Inlet structure for Alternative 1.

Alternative 2: Mid Canyon Storm Drain to 25th Street Storm Drain – This alternative is a mid-canyon inlet with “canyon fill alignment” storm drain, which would discharge into the existing 25th Street Storm Drain (Figure 12). The tributary area at the proposed inlet is 123.7 acres. This inlet structure would collect surface water into a subsurface storm drain system consisting of a 48-inch diameter pipe system with a 12-inch diameter underlying the subdrain system. Construction of the storm drain system would include placing fill within the majority of the canyon in order to restore the ground surface to “pre-erosion” conditions and to mitigate the over-steepened canyon walls and failing areas. This system would tie into the existing insufficient system that underlies W. 25th Street; therefore it is not likely that this alternative will alleviate future flooding events onto W. 25th Street. This alignment is primarily within the City of Rancho Palos Verdes, but also partially within the City and County of Los Angeles.

Alternative 2 inlet structure and buried drainage improvements would impact approximately 0.74 acres of jurisdiction drainage and approximately 0.50 acres of Coastal sage scrub habitat, buckwheat-dominated. Any additional habitat impacts would be limited to grassland only. No impact to the beach bluff will occur with this alternative. This alternative is partially consistent with applicable State, regional and local habitat conservation plans and programs. The City of Los Angeles does not have a proposed or adopted NCCP for potential project impacts.

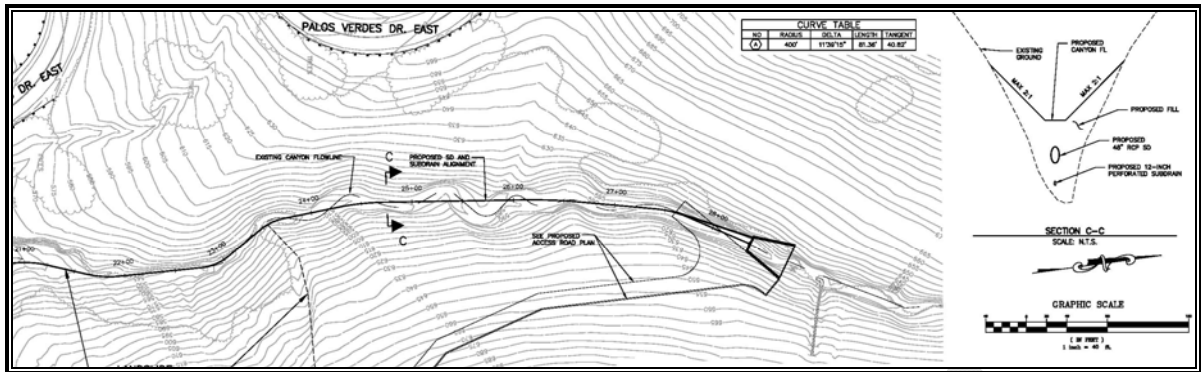


Figure 12: Inlet structure for Alternative 2.

Alternative 3: Up Gradient Storm Drain to 25th Street Storm Drain – This alternative proposes an upper-canyon inlet (similar to Alt. 1) with “canyon fill alignment” (similar to Alt. 2) storm drain which discharges into the existing inefficient W. 25th Street storm drain, rather than a tunnel. This alternative would help to stabilize the Tarapaca Landslide movement from further erosion of the canyon walls. This alternative will not alleviate future flooding events onto W. 25th Street without upgrading the City owned storm drain. This alignment is primarily within the City of Rancho Palos Verdes, but also partially within the City and County of Los Angeles.

Alternative 3 inlet structure and buried drainage improvements would impact all 0.81 acres of the jurisdiction drainage and approximately 0.50 acres of Coastal sage scrub habitat, buckwheat-dominated. Any additional habitat impacts would be limited to grassland only. No impact to the beach bluff will occur with this alternative. This alternative is partially consistent with applicable State, regional and local habitat conservation plans and programs but would have greater environmental impacts than the proposed alternative. The City of Los Angeles does not have a proposed or adopted NCCP for potential project impacts in this area.

Alternative 4: Upsizing of the 25th Street Storm Drain System – This alternative would upsize the 25th Street storm drain inlet structure and downstream piping. Up sizing of the existing storm drain would require replacement of the entire line from the inlet structure, through the mobile home park and golf course, and a new enlarged outlet structure. This alternative would include grading of a retention basin at the entrance to the canyon to slow down storm flows before they enter the existing storm drain. The retention basin would result in the greatest impacts to jurisdictional waters over a smaller area because most of the qualifying jurisdictional waters are at the mouth of the canyon. Large boulders and rip rap would be placed up the canyon to slow storm flows before they reach the inlet structure and stabilize the Tarapaca Landslide from continued failures. The City of LA has indicated in past meetings with the City of RPV that upsizing the San Ramon storm drain is not likely due to environmental and jurisdictional constraints at the mouth of San Ramon Canyon and impacts to downstream residents during construction. This alternative is not consistent with applicable State, regional and local habitat conservation plans and programs. The City of Los Angeles does not have a proposed or adopted NCCP for potential project impacts in this area.

Alternative 5: Upsizing of the 25th Street Storm Drain Inlet Structure only – This alternative would upsize the 25th Street storm drain inlet structure but would not upgrade the entire pipe system as discussed in Alternative 4. This alternative would include grading of a retention basin at the entrance to the canyon to slow down storm flows before they enter the existing storm drain. The retention basin would result in the greatest impacts to jurisdictional waters over a smaller area because most of the qualifying jurisdictional waters are at the mouth of the canyon. Large boulders and rip rap would be placed up the canyon to slow storm flows before they reach the inlet structure. This rip rap may or may not extend to the Tarapaca Landslide. Therefore the problem of continued erosion of the canyon walls would not be solved. The City of LA has indicated in past meetings with the City of RPV that upsizing the San Ramon storm drain is not likely due to jurisdictional environmental constraints at the mouth of San Ramon Canyon. This alternative is not consistent with applicable State, regional and local habitat conservation plans and programs. The City of Los Angeles does not have a proposed or adopted NCCP for potential project impacts.

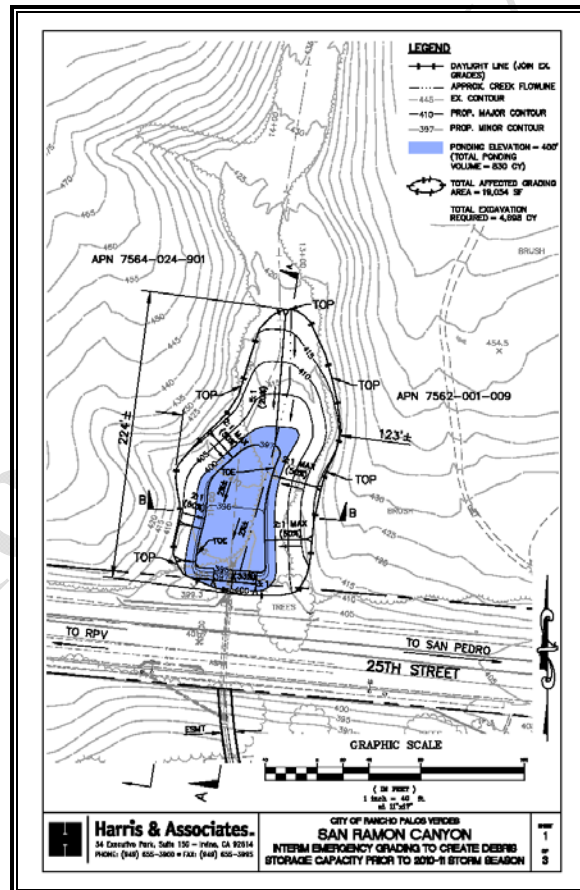


Figure 13: Alternative 5

Alternative 6: Cleaning of the W 25th Street Storm Drain Inlet Structure - This alternative would simply dig out all the debris at the mouth of San Ramon Canyon adjacent to W. 25th Street in the City of Los Angeles. The City of LA has indicated in past meetings that any grading in this area is not likely due to environmental constraints at the mouth of the canyon. This alternative is partially consistent with applicable State, regional and local habitat conservation plans and programs.

Alternative 7: No Impact/No Cost Alternative - This alternative would balance the continued risks associated with flooding, both in terms of life and property. The alternative would continue to require maintenance after a flood event to clean up the streets.

Alternative Summary

Based on the alternatives reviewed, when compared to the proposed project, the proposed project presents the least amount of jurisdictional and native habitat impacts.

1.8 Community Outreach/Public Participation

The proposed project is not considered controversial and is not anticipated to generate public controversy. Families that live in the single family homes on the northeast side of the canyon, above the Tarapaca landslide, are very supportive of the project. The following community outreach and public notification was conducted by City staff and the consultant team.

July 21, 2010: Residents located within the surrounding communities and those potentially impacted by any temporary construction impacts along Palos Verdes Drive East, were publicly noticed within the local newspaper and significant signage was placed at key intersections near the project area. On the evening of July 21, 2010, a community meeting was held at the Miraleste Intermediate School auditorium, to discuss the proposed project and solicit comments from the surrounding residents. A list of those residents/owners and owner representatives present at the meeting are attached to this document. Approximately 75 residents as well as City officials and members of the design engineering and environmental team were in attendance. Comment cards were also distributed at the meeting and have been attached to this document.

July 14, 2011: The draft Initial Study was issued to the California State Clearinghouse for distribution to affected resource agencies during the early consultation. Copies were also made available at the City of RPV.

July 15, 2011: The City of RPV published the draft Initial Study on their web site.

July 28, 2011: On July 28, 2011, the City of RPV published a Notice for Early Consultation on the City's website. Subsequently, the notice was published in the *Palos Verdes Peninsula News* on July 28, 2011. The notice provided the public with a 30-day comment period to submit comments on the environmental issues that should be addressed in the MND/FONSI.

November 16, 2011: Pending distribution of draft MND/FONSI.

			Alternatives versus Proposed Project and Cumulative Impacts						
Environmental Issues	Proposed Project	Proposed Project Cumulative Impacts	Alternative 1: Up Gradient SD with Tunnel	Alternative 2: Mid Canyon SD to W. 25th St. SD	Alternative 3: Up Gradient SD to W. 25th St. SD	Alternative 4: Upsizing W.25th St. SD System	Alternative 5: Upsizing W. 25th St. SD Inlet Structure only	Alternative 6: Cleaning W. 25th St. SD Inlet only	Alternative 7: No Project/ Impact
Land Use/Land-Water Conservation Fund/Recreation	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	No Change from Existing Conditions
Floodplain/Storm Water	Beneficial	Beneficial	Beneficial	No Change from Existing Conditions	No change from existing conditions	Significant but Beneficial	Less than Significant with Mitigation	Less than Significant with Mitigation	No Change from Existing Conditions
Hydrology/Water Quality	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	No Change from Existing Conditions
Aquifer/Drinking Water Supplies	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Change from Existing Conditions
Coastal Zone/Barrier Resources	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	No Impact	No Impact	Significant/Less than Significant with Mitigation	No Impact	No Impact	No Change from Existing Conditions
Fish/Wildlife/Threat.- Endang. Species/Wetlands	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	No Change from Existing Conditions
Wild and Scenic Rivers	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Change from Existing Conditions
Protected Farmlands/Agriculture & Forestry Resources	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Change from Existing Conditions
Geology/Soils/Liquefaction	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	No Change from Existing Conditions
Cultural Resources/Native Americans/SHPO	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant	No Change from Existing Conditions
Visual Resources	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	No Change from Existing Conditions
Noise	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	No Change from Existing Conditions
Traffic/Circulation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	No Change from Existing Conditions
Air Quality/GHG	Less than Significant with Mitigation/Less than Significant	Less than Significant with Mitigation/Less than Significant	Less than Significant with Mitigation/Less than Significant	Less than Significant with Mitigation/Less than Significant	Less than Significant with Mitigation/Less than Significant	Less than Significant with Mitigation/Less than Significant	Less than Significant with Mitigation/Less than Significant	Less than Significant with Mitigation/Less than Significant	No Change from Existing Conditions
Haz. Mat/Waste	Less than Significant/No Impact	Less than Significant/No Impact	Less than Significant/No Impact	Less than Significant/No Impact	Less than Significant/No Impact	Less than Significant/No Impact	Less than Significant/No Impact	Less than Significant/No Impact	No Change from Existing Conditions
Public Services/Utilities	No Impact/Less than Significant	No Impact/Less than Significant	No Impact/Less than Significant	Significant	Significant	Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant/Less than Significant with Mitigation	Significant
Env. Justice Geo. Assess./Relocation Impacts	No Impact	No Impact	No Impact	No Impact	No Impact	Significant/Less than Significant with Mitigation	No Impact	No Impact	No Change from Existing Conditions

1.9 Interagency Coordination and Consultation Activities/Crosscutters

The following agencies were consulted by phone, mail or in person.

- State Historic Preservation Office: The SHPO office was submitted a project package via mail, including the cultural resource study, survey results and Native American consultation. Approval from SHPO is pending.
- California Department of Transportation: Caltrans was contacted by phone with regard to proposed alternative solutions for storm flows. Caltrans will likely require encroachment permit(s) for any work done in, over or under W. 25th Street.
- Los Angeles County Flood Control District: The LACFCD was contacted numerous times by phone and via several meetings with the City of Rancho Palos Verdes Project engineer with regard to future improvements to the San Ramon canyon storm drain at W. 25th Street. The county has indicated, as documented in the Alternative #5, that improvement to the storm drain at San Ramon canyon is not feasible at this time due to environmental constraints to wetlands and jurisdictional habitat.

The storm drain tunnel project, as proposed, will be located further up the canyon and not impact the lower jurisdictional area.

- City of Los Angeles Public Works Department: The City of Los Angeles participated in at least 1 early meeting with the City of RPV and via numerous phone calls by the City of RPV project engineer. The City of LA is supportive of the City of RPV's storm drain actions because the City of LA does not have the funding sources to improve the storm drain at W. 25th Street.

1.10 Project Sponsors and Contact Persons

The City of Rancho Palos Verdes is the applicant and lead agent for the preparation of this CEQA/NEPA document. The following agencies, organizations and individuals are associated with this project in the capacities indicated:

Lead Agency/Applicant:

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Environmental Consultant:

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Irvine, CA 92618

Ms. Sandra Jacobs, R.E.A.

(949) 348-1233

Design Engineers

Harris & Associates

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Irvine, CA 92614

Contact: Randall Berry, P.E.

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(biological assessment)

Natural Resources Assessment c/o

SFC Consultants

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Chino, CA

Ms. Karen Kirkland

(909) 686-1141

(California gnatcatcher survey)

Rincon Consultants, Inc. c/o

SFC Consultants

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Ventura, CA 93003

Cultural Resources:

Historical Environmental Archaeological Research Team c/o

SFC Consultants

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(818) 340-6676

Geotechnical Engineer

GMU Geotechnical Inc.

23241 Arroyo Vista

Rancho Santa Margarita, CA 92688

Ms. Lisa Bates-Seabold, PG, CEG

949-888-6513



1.11 Source Documents/References:

1. Air Resources Board, Cal EPA, Urban Forest Greenhouse Gas Protocols.
2. California Agricultural Land Evaluation and Site Assessment Model, 1997.
3. City of Rancho Palos Verdes Citywide NCCP, URS, July 2004.
4. City of Rancho Palos Verdes General Plan.
5. City of Rancho Palos Verdes Local Coastal Program.
6. GMU Geotechnical, Inc. Preliminary Geotechnical Study Report for San Ramon Canyon Storm Drain System, City of Rancho Palos Verdes, CA. Sept. 27, 2010.
7. Harris & Associates, Hydrology and Hydraulics Study for San Ramon Canyon Storm Drain. Pending Final.
8. Historic Environmental Archaeological Research Team, Phase I Archaeological Study, Aug. 2011.
9. Native American Heritage Commission, Aug. 10, 2010.
10. Natural Resources Assessment, Wetlands Delineation, Biological Report, Sept. 2010.
11. Rincon Consultants, Coastal California Gnatcatcher Focused Survey Report, Aug. 2011.
12. Santa Monica Bay Watershed Management Area, and 303(d) lists.
13. South Central Coastal Information Center, August 25, 2010.

2.0 Existing Environment/Setting

The project area is generally undeveloped as seen in the photos in Section 1.0. The canyon floor is generally used by hikers. There is one shelter/cave area (use unknown) approximately one-third of the way up the canyon. An existing sewer line is located between PVDE and the canyon slope. Overhead utility lines are located on the east side of the canyon. PVDE is located to the west, and W. 25th Street roadways to the south. Single family residences are located upslope of the upper portions of San Ramon Canyon, and the Palos Verdes Shores mobile home park to the south of W. 25th Street.

The major topographical feature within the project site is San Ramon Canyon, which trends generally north-south. Prior to development, this canyon extended to the Pacific Ocean. However, during construction of 25th Street, the lower portion of the canyon was buried and the flow of water was collected into a storm drain system that begins at W. 25th Street and extends down to the ocean. Currently, the inlet structure that is the upstream terminus of the system has been buried by debris.

The remaining portions of the project site consist of gentle to very steep slopes, with the steeper slopes found within the canyon. The topography of the project site is generally controlled by the large ancient landslide that comprises the majority of the site. This landslide, the South Shores landslide, is considered dormant having no documented movement in 10,000 years.

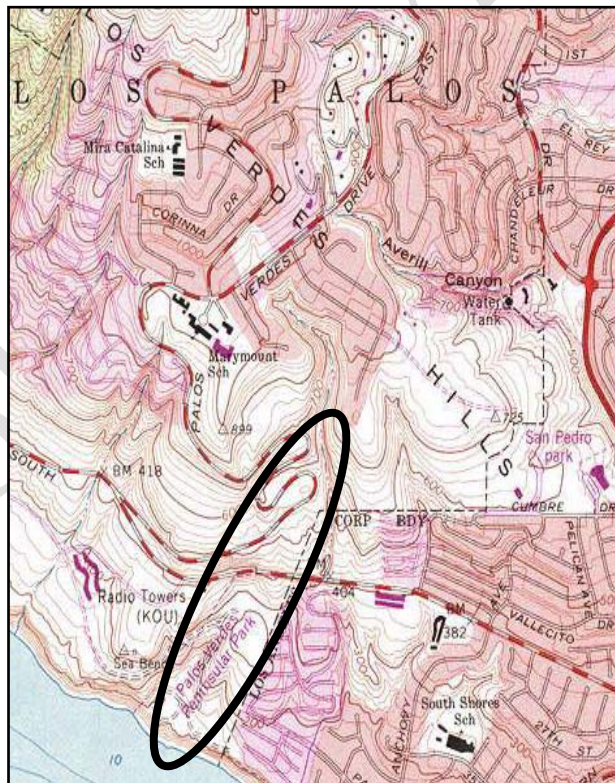


Figure 14: Topographic map of project area.

2.1 **Biological Resources**

A General Biological Resources Assessment and Jurisdictional Delineation was prepared for the San Ramon Canyon Storm Drain Improvements on September 29, 2010 by Natural Resources Assessment (NRA) of California. Supplemental information was also reviewed on the City's Natural Communities Conservation Planning Subarea Plan, prepared by URS and dated July 2004. A focused California gnatcatcher survey was conducted per California Department of Fish and Game protocol during the breeding season in April and May 2011. Findings from that report are provided below.

- Review of information on plant and wildlife species known to occur within the vicinity of the project.
- Reviewed of available information provided by technical references, SFC Consultants and the City of Palos Verdes.
- Field survey on September 29 and 30, 2010.
- Review of the Rancho Palos Verdes Citywide Natural Community Conservation Plan.

2.1.1 Determination of Significance

The determination of significance is based on the status of the species, the habitat type, and coverage under other regulatory mechanisms such as the Federal Endangered Species Act, the Clean Water Act, the California Department of Fish and Game 1600 Streambed regulations, and other legislation. Negative impacts to listed species are a mandatory finding of significance, regardless of the extent or type of impact. Impacts to protected habitats are generally considered significant, and are usually covered under other regulations such as the 404 and 1602 regulations, including a Local Coastal Program (LCP).

For the determination of the level of significance to sensitive but non-listed resources, the California Environmental Quality Act (CEQA) requires that the impact be such that the habitat of the protected resource will be substantially degraded or reduced, cause a wildlife population to drop below self-sustaining levels, or that the plant or animal community will be eliminated. CEQA also finds that the impacts are significant if there are cumulative effects from future probable projects.

2.1.2 Regulations

Citywide Natural Community Conservation Plan

On August 31, 2004, the City Council conceptually approved a Citywide Natural Community Conservation Plan (NCCP) Subarea Plan that identifies Biological Resource Areas and establishes habitat preserves. The Subarea Plan is currently being reviewed by the Resource Agencies (Federal and State), and is pending final approval in 2012. The subarea plan for the project is also consistent with the criteria in Section 10(a) of the Federal Endangered Species Act.

According to the NCCP, the City anticipated the need to repair or improve drainage systems in areas of the City that are not located within the Portuguese Bend Landslide Area or the Palos Verdes Drive East drainage study area. It also anticipated that some of these drainage projects would necessitate work in habitat areas, and estimated that these City projects would result in a cumulative combined loss of 10 acres of CSS habitat and 24 acres of non-native grassland. The development of the NCCP included all the relevant provisions of the Local Coastal Program. Any requirements under the LCP are part of the NCCP.

The improvement of San Ramon Canyon was addressed as part of the development of the NCCP (excepted below). The project area falls within the NCCP Switchbacks, and Shoreline Park Preserve Properties. All impacts, other than impacts to jurisdictional waters, are covered by the provision of that document and no additional mitigation for those impacts is required.

Section 3 from NCCP: “19. Lower San Ramon Canyon Repair (Proposed) It is anticipated that the City will need to do some remedial grading in Lower San Ramon Canyon to prevent a landslide from blocking water flow in the canyon. Geologic studies have identified a landslide in the canyon that has the potential to create blockage of the stream flow. Blockage of the stream flow could cause water to percolate into the adjacent South Shores Landslide. It is estimated that the grading activity would result in the loss of 2.0 acres of CSS habitat and 6.0 acres of non-native grassland. The City proposes 6.0 acres of offsite CSS mitigation and 3.0 acres of offsite non-native grassland mitigation (city property dedication)”.

Switchback Preserve Property

The Switchback Preserve Property encompasses the San Ramon canyon inlet structure, tunnel and buttress fill. Vegetation designations include Grassland and Coastal Sage Scrub (CSS) – undifferentiated. The biological assessment prepared for the project substantiated the grass land habitat on Figure 15. However, while CSS is shown on the NCCP maps at the inlet structure and buttress fill locations, the biological field survey resulted in no CSS in these areas.

The switchback preserve property map also indicates several historic sightings of the Palos Verdes Blue Butterfly. However, based on the biological assessment, field survey and California gnatcatcher survey conducted, no PVBB habitat was observed. Therefore no PVBB special survey was conducted.

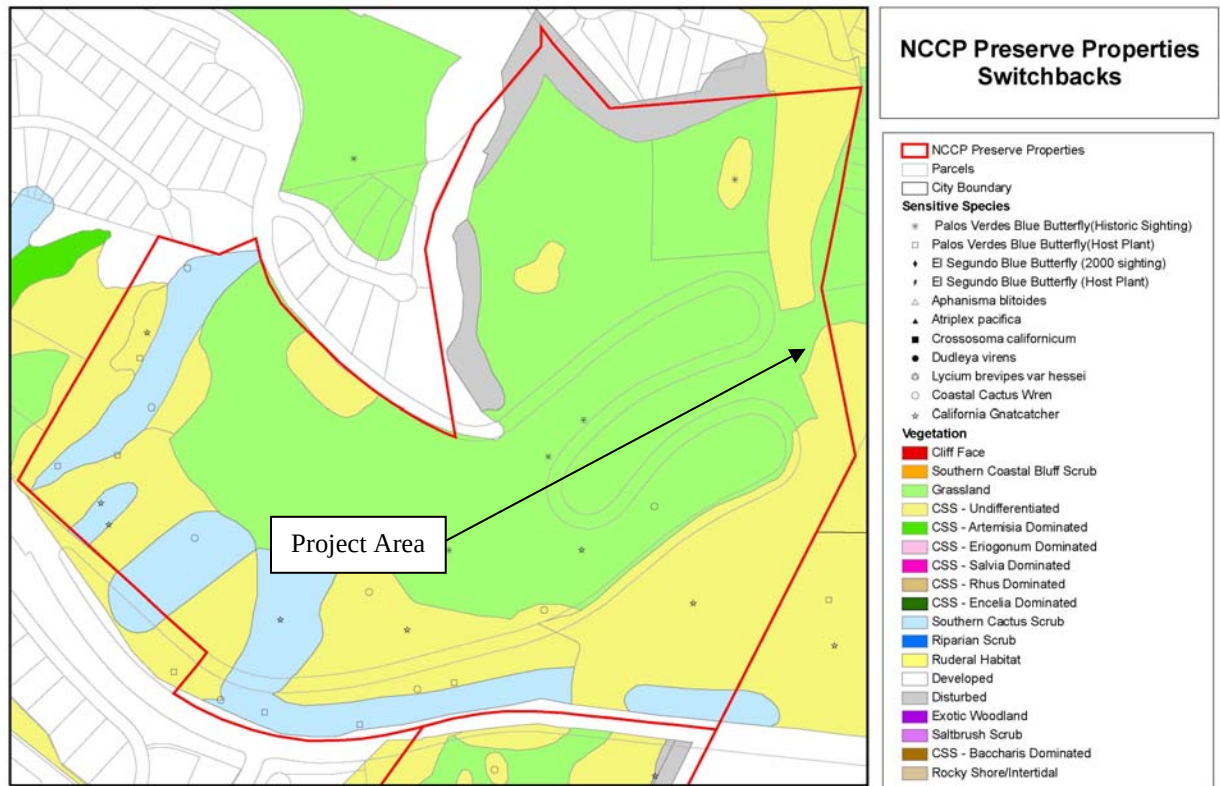


Figure 15: NCCP Preserve Properties, Switchbacks

Shoreline Park Preserve Property

Shoreline Park, with its conservation easements, is the mitigation area for the Tarapaca HCP. The biological values immediately along the dirt road south of W. 25th Street/Palos Verdes Drive East are minimal, appearing to consist of mostly non-native plants established during past re-vegetation efforts. West of this area, the park is most Grassland, except for a large stand of Coastal Sage Scrub habitat along the extreme western boundary of the park. This Coastal Sage Scrub habitat would not be impacted with the proposed storm drain project. The City will be required to issue a Coastal Permit for the project under the requirements of the Local Coastal Plan.

Coastal Zone Management Act

The project outlet structure is located in the coastal zone. The coastal zone for the City of RPV extends seaward of PVDS. The Coastal Zone Management Act (CZMA) of 1972 is the primary federal law enacted to preserves, protects, develops, restores and enhances coastal zone resources. The CZMA directs the states to develop Coastal Zone Management Programs (CZMP) to protect coastal resources within state borders, including wetlands.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA; they include the protection and

expansion of public access and recreation, the protection, enhancement and restoration of environmentally sensitive areas, protection of agricultural lands, the protection of scenic beauty, and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act. The Commission has delegated the management of coastal zones to local governmental entities, requiring them to develop a Local Coastal Plan (LCP) for coastal resources within their boundaries.

The City of Rancho Palos Verdes has developed a Coastal Specific Plan (CSP) per the requirements of the CZMA and the California Coastal Commission requirements. The CSP defines the areas of sensitivity for biological resources and other resources (such as fire) along the coastline and offshore waters. For this project, the coastal zone area is the portion of the project seaward of the lower PVDS switchback. As noted above, compliance with the CSP will require issuance of a Coastal Permit for this project.

Coastal Resource Management District

The proposed storm drain lies within a Coastal Resource Management (CRM) District with a terrestrial designation of CRM-10. This is an area that contains other natural vegetation areas, meaning that this District has some terrestrial wildlife value. The offshore waters in this CRM are protected under the LCP as a marine preservation area, meaning that all marine resources must be protected against impacts. They include kelp beds, abalone habitat, rock reef habitat and their associated wildlife. Mitigation has been incorporated into the construction methodology along the shore to comply with the LCP and protect marine resources.

Coastal Barrier Resources Act (CBRA)

The Coastal Barrier Resources Act (CBRA) is managed by the Federal Emergency Management Agency (FEMA) and implemented by the US Fish and Wildlife Service. The CBRA restricts development on the Coastal Barrier Resources System (CBRS) which serves as an important buffer between coastal storms and inland areas. Coastal barriers also provide a protective habitat for aquatic plants and animals. Implementation of the LCP and Coastal Permit for the portion of the project seaward of PVDS will be required to comply with the CBRA.

2.1.3 Jurisdictional Drainages and Wetlands

U. S. Army Corps of Engineers (ACOE)

The ACOE regulatory jurisdiction pursuant to Section 404 of the Clean Water Act is founded on a connection or nexus between the water body in question and interstate (waterway) commerce. This connection may be direct, through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the Corps regulations. The Corps also regulates navigable waters, defined as waters “that are, could be, or were used to transport interstate or foreign commerce” (Cylinder, et al 2004). These waters are regulated under Sections 9 and 10 of the River and Harbors Act. The ACOE regulates discharges of dredged or fill material into waters of the United States. These watersheds include wetlands and non-wetland bodies of water that meet specific criteria.

San Ramon Canyon has a clear connection to the ocean and would come under the jurisdiction of the ACOE.



Photo 16: Jurisdictional drainage

The lateral limit of Corps jurisdiction extends to the Ordinary High Water Mark (OHWM) and to any wetland areas extending beyond the OHWM; thus, the maximum jurisdictional area is represented by the OHWM or wetland limit, whichever is greater.

USACE issues two types of 404 permits: Standard and General permits. There are two types of General permits, Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental

effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The Section 404(b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA), to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

ACOE Summary: Based on review of the regulations, the historic connection the canyon drainage has with the ocean, the extent of earthwork proposed to remedy erosion, flash flood episodes and construction of the storm drain structure, the project will likely require an ACOE 404 permit.

State Water Resources Control Board

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the State. It predates the CWA and regulates discharges to waters of the State. Waters of the State include more than just Waters of the U.S., like groundwater and surface waters not considered Waters of the U.S. Additionally, it prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant". Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

SWRCB Summary: San Ramon Canyon is a state water as defined by the State Water Resources Control Board (SWRCB). The Corps has delegated the authority for use of 404 permits to each individual state. The SWRCB is the state agency that allows the use of a 404 permit in the state, with the authority in the state being vested in regional offices. The use of a 404 permit in Rancho Palos Verdes is regulated by the Los Angeles Regional Water Quality Control Board (LARWQCB) under Section 401 of the Clean Water Act regulations. In addition, the Board has the responsibility to require that

projects address ground water and water quality issues, which would be evaluated as part of the geotechnical and hydrology studies. Their authority extends to all waters of the State (of California). Under the Porter-Cologne Act of 2003, the RWQCB has extended its responsibilities to include impacts to water quality from non-point source pollution.

California Department of Fish and Game

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The California Department of Fish and Game (CDFG) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code. CDFG regulates any alteration of streambeds or lakes through their Code 1600 et seq. program. Any channel area displaying bed and banks falls within CDFG's jurisdiction. Lateral limits of jurisdiction are not clearly defined, but generally include any riparian resources associated with a stream or lake.

CDFG Summary: San Ramon Canyon has a bed and definable banks and would come under the jurisdiction of the CDFG. There are 0.81 acres of jurisdictional streambed, but no riparian habitat. The project will likely require a CDFG 1602 permit to address impacts to the maintained drainage channel. It is not clear whether the project proponent will have to obtain a 401 permit from the RWQCB, because no 404 permit is required. However, the project will be required to obtain a National Pollutant Discharge and Elimination System (NPDES) permit from the RWQCB or as part of the Los Angeles County MS4 permit.

Jurisdictional Summary

Based on the field visit conducted, there was no riparian plant species, hydric soils or hydrology to support a wetlands habitat. There is no wetland habitat in the canyon. However, the project is a jurisdictional drainage and will come under the jurisdiction of the three agencies listed above. The jurisdictional waters of San Ramon Canyon are a total of 0.81 acres (Figure 16). The project alternatives were reviewed to avoid jurisdictional impacts to the extent feasible. However, due to the nature of storm drain construction, avoidance of impacts was not possible with any of the alternatives and still be able to achieve the goals of protecting the downstream community from flash flood episodes, minimizing erosion of the canyon wall and stabilizing PVDE and the Tarapaca landslide. Therefore, minimization and compensation measures were reviewed for each alternative. Based on analysis of project information available, the proposed project has the least impacts with 0.07 acres of jurisdictional waters. The proposed project is the least impactful

of the alternatives reviewed. These impacts are proposed to be mitigated at a 3:1 ratio. Therefore, at least 0.21 acres of the restored streambed will provide the mitigation needed through the Landscape Mitigation Plan required.

2.1.4 Existing Plant Communities

The area south of W. 25th Street to the top of the bluffs overlooking the ocean is impacted by foot traffic and recreational biking. A maintenance road and foot path area extends from W. 25th Street down to the ocean bluffs. East of the path is a mostly non-native plant community indicative of prior disturbance. West of the path, there is an area that appears to have been re-vegetated using a mix of local and inland native plant species (such as *Encelia farinosa*, desert brittlebush, not normally found on the coast). Based on field observations and NCCP information, the project area supports three distinct plant communities (Figures 16 and 17).

Grassland

The upland areas around San Ramon Canyon north of W. 25th Street support a Grassland plant community. The dominant species at the time of the survey were wild oats (*Avena fatua*) and slender wild oats (*Avena barbata*). Other annual species in the plant community include shortpod mustard (*Hirschfeldia incana*), ripgut brome (*Bromus diandrus*) and hare barley (*Hordeum murinum*). Shrub species found in sparse abundance include coastal brittlebush (*Encelia californica*), California sagebrush (*Artemisia californica*) and lemonade berry (*Rhus integrifolia*). Peruvian pepper tree (*Schinus molle*) occurs as scattered individual tree.

South of W. 25th Street, the habitat east of the path is a mix of Grassland and bare earth. Ripgut brome and purple false-brome (*Brachypodium distachyon*) are common in the Grassland plant community in this area, along with fountain grass (*Pennisetum setaceum*) and cliff aster (*Malacothrix saxatilis*). West of the path is more Grassland, and to the extreme west, Coastal Sage Scrub, Buckwheat-dominated. Appendix B in the biological report contains a list of all plant species observed. There are 63.48 acres of Grassland shown on Figure 15, canyon section, and 41.65 acres of Grassland shown on Figure 16, lower project section.

Coastal Sage Scrub

San Ramon Canyon supports an open stand of Coastal Sage Scrub, Buckwheat-dominated. Plant cover was relatively low along the bottom (main flow area) of the canyon, with most of shrub species concentrated on the canyon's slopes and where the canyon widens out at the bottom. Shrubs in addition to ashleaf buckwheat (*Eriogonum cinereum*) include California sagebrush and coastal brittlebush. Found scattered on the canyon bottom near Palos Verdes Drive East is arroyo willow (*Salix lasiolepis*), Indian tree tobacco (*Nicotiana glauca*) and castor bean (*Ricinus communis*). There are 15.82 acres of Coastal Sage Scrub, Buckwheat-dominated shown on Figure 15, and 10.43 acres of CSS shown on Figure 16.

Southern Coastal Bluff Scrub

The coastal bluff supports a stand of Southern Coastal Bluff Scrub. One cactus species observed is coastal prickly pear (*Opuntia littoralis*). Shrub species observed in this plant community

include coastal brittlebush, California sagebrush and white-flowered goldenbush (*Isocoma menziesii*).

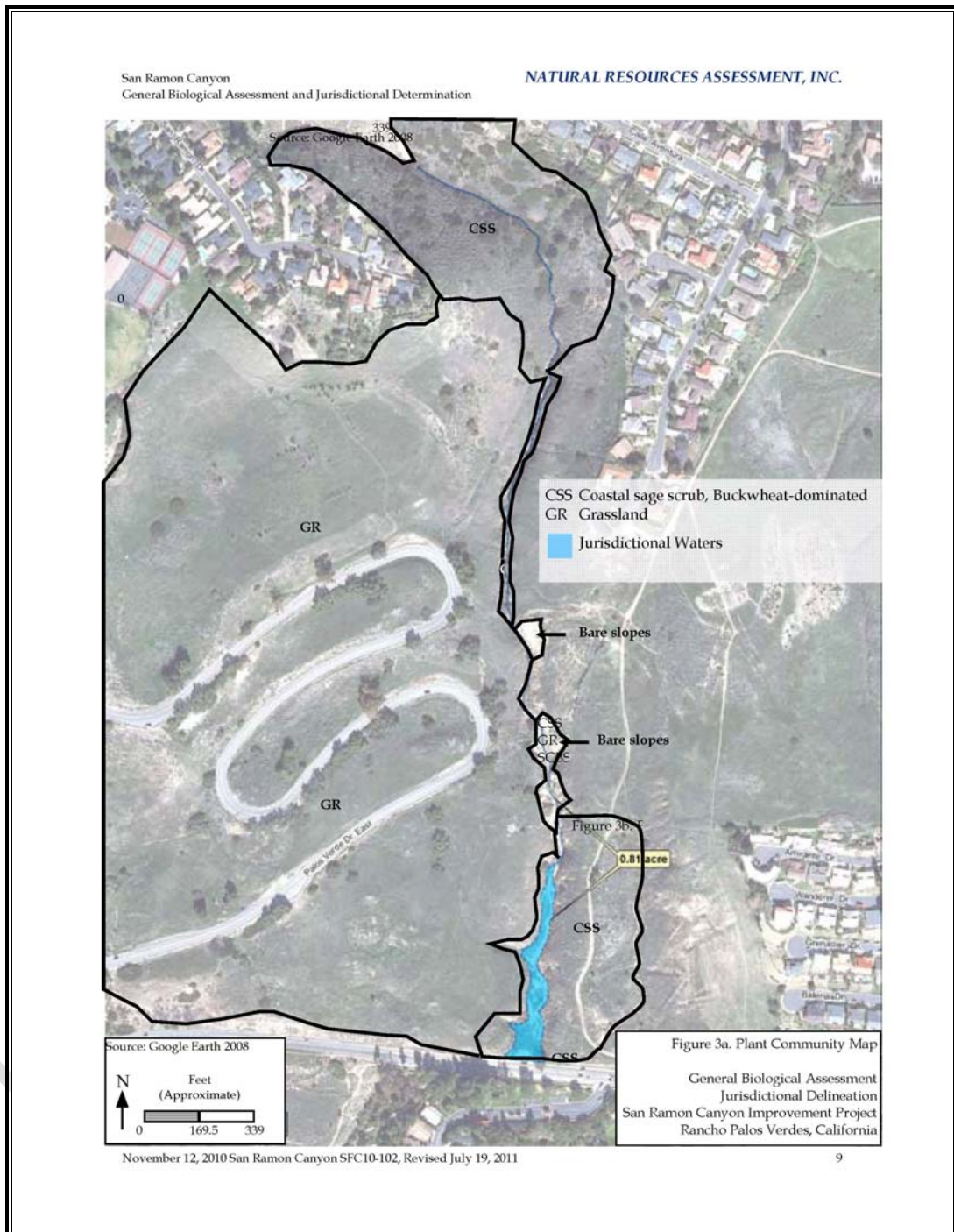


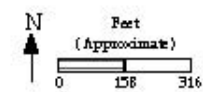
Figure 16: Plant communities, upper section



Source: Google Earth 2008

Figure 3b. Plant Community Map

CSS Coastal sage scrub, Buckwheat dominated
GR Grassland
SCBS Southern coastal bluff scrub



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Figure 17: Plant Communities, Lower section.

2.1.5 Sensitive Plant Resources/Threatened-Endangered Species

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 USC Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an Incidental Take statement. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. The emphasis of the section should be on the ecological function of the natural communities within the area. This section also includes information on wildlife corridors [include fish passage as appropriate] and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value. Include any regulations that pertain to the natural communities discussed (i.e. Oak Woodland protection, California Fish and Game Code, etc.)

The CNDDDB identified nineteen sensitive biological resources recorded on the San Pedro quadrangle. Of these nineteen resources, seven are either found in similar habitat within three miles of the project site, or there is suitable habitat present on site. Three of the six resources were present on site, and one additional species not mapped on the San Pedro topographic quadrangle was also found on site. Six of the resources found on site are covered species in the City's NCCP. Following are detailed discussions on the ten sensitive biological resources present or potentially present in the vicinity of the project area.

Woolly Seablite

Woolly seablite (*Suaeda taxifolia*) is an evergreen shrub that occurs on coastal bluffs, in coastal dunes and along the margins of salt marshes. It blooms throughout the year from January through December, growing at elevations from sea level to 50 meters. It occurs in coastal areas from Santa Barbara and the Channel Islands south to Baja California, including the Palos Verdes Peninsula.

Woolly seablite is impacted mostly by habitat loss and degradation from coastal development and use. It is listed on List 4.2 of the CNPS Inventory and is a covered species in the City's NCCP. It is not listed by the USFWS or the CDFG. Although Woolly seablite was observed on the bluff face, the species will likely not be affected by the outlet construction due to its location from the outlet structure.

Aphanisma

Aphanisma (*Aphanisma blitoides*) is an annual herb that occurs only in coastal areas, on bluffs and slopes near the ocean. It prefers sandy or clay soils in coastal bluff scrub, coastal dune and coastal scrub habitats. It blooms from March through June at elevations from one to 305 meters. It is on the Channel Islands and on the mainland, including the Palos Verde Peninsula.

Threats to this species are mostly habitat decline from urbanization, residential development and foot traffic along bluff faces. On a few of the Channel Islands, aphanisma is threatened by feral herbivores such as goats. Aphanisma is on List 1B.2 of the CNPS inventory. It is not listed by the USFWS or the CDFG. However, it is a covered species in the City's NCCP. Although Aphanisma was found on the bluff face, the species will likely not be affected by the outlet construction due to its location from the outlet construction.

South Coast Saltscale

South Coast saltscale is an annual herb that occurs along the coast and in suitable playa habitat away from the coast. It occurs on alkali soils in coastal bluff scrub, coastal dune and coastal scrub on the coast, and in chenopod scrub in playa habitats. South Coast saltscale flowers from March through October at elevations from sea level to 140 meters.

Threats to this species include coastal development and recreational use of sand dunes and playas. South Coast saltscale is on List 1B.2 of the CNPS inventory. It is not listed by the USFWS or the CDFG. It is a covered species in the City's NCCP. South coast saltscale was not observed during the field survey.

Davidson's Saltscale

Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) is an annual herb that occurs along bluffs and lower slopes along the coast and in suitable habitats inland from the coast. It is found in coastal bluff scrub and coastal scrub habitats on alkaline soils. Davidson's saltscale blooms from April to October at elevations from 10 to 240 meters.

Threats to this species include recreational use of coastal areas, urbanization of coastal slopes and channelization and disking of suitable alkaline soil habitats inland. Davidson's saltscale is on List 1B.2 of the CNPS inventory. It is not listed by the USFWS or the CDFG. Davidson's saltscale was not observed during the field survey.

Catalina Crossosoma

Catalina crossosoma (*Crossosoma californicum*) is a deciduous shrub that grows on rocky sea bluffs, in wooded canyons and dry open sunny areas on rocky clay. It is found in coastal scrub and chaparral habitats, primarily on the Channel Islands. The mainland populations are mostly limited to the undeveloped areas of the coast, including the Palos Verdes Peninsula. It is present year round, flowering from February through May at sea level to 500 meters elevation.

The mainland populations are subject to loss from urbanization. Catalina crossosoma is on List 1B.2 of the CNPS inventory. It is not listed by the USFWS or the CDFG, but it is a covered species in the City's NCCP. Catalina crossosoma was not observed during the field surveys.

Santa Catalina Island Desert-thorn

Santa Catalina Island desert-thorn (*Lycium brevipes* var. *hassei*) is a deciduous shrub growing on coastal bluffs and slopes along the coast. It occurs in coastal bluff scrub and coastal bluff scrub habitats. This species blooms in June at elevations ranging from ten to 300 meters.

The mainland population has very few individuals and is threatened by coastal development in unprotected areas. One population was found in 1992 at the Abalone Cove Ecological Reserve. Santa Catalina Island desert-thorn is on List 1B.1 of the CNPS inventory. It is not listed by the USFWS or the CDFG, but it is a covered species in the City's NCCP. Catalina Island desert-thorn was not observed during the field surveys.

Island Green Dudleya

Island green dudleya (*Dudleya virens* ssp. *insularis*) is a perennial herb growing on rocky sea bluffs along the coast and on the Channel Islands (Photo 17). It prefers rocky soil in coastal scrub and coastal bluff scrub habitats. This species blooms from April through June from five to 300 meters in elevation.

The mainland populations are threatened by coastal development. Island green dudleya is on List 1B.2 of the CNPS inventory. It is not listed by the USFWS or the CDFG. It is a covered species in the City's NCCP. Island green dudleya was observed all along the upper bluff face, apparently growing along a line of substantially rocky soils. Although this species will likely not be affected by the outlet construction, a preconstruction survey, and species relocation if necessary, will be conducted as a precautionary measure.



Photo 17: Island green dudleya on bluff near project area.

Small-flowered Morning Glory

Small-flowered morning glory (*Convolvulus simulans*) is an annual herb that grows on coastal bluffs and slopes, as well as in inland slopes and flatlands. It is found in chaparral, coastal scrub

and valley and foothill grassland habitats. This species grows on clay soils and serpentinite seeps at elevations from 30 to 700 meters. Small-flowered morning glory blooms from March through July.

This species is threatened by development along the coast and in inland flatland and shallow slopes areas. It is on List 4.2 of the CNPS Inventory, but is not listed by the CDFG or the USFWS. Small-flowered morning glory was observed on the bluff face; however, the species will likely not be affected by the outlet construction due to its location of the from the outlet construction area.

Coastal Sage Scrub

Coastal sage scrub is a plant community composed of semi-deciduous shrubs such as California buckwheat, California sagebrush and coastal encelia. This plant community was once common through the coastal areas inland areas of southern California, but has been lost to development. It provides habitat for a number of listed and sensitive species, including the California gnatcatcher. Coastal sage scrub is present along portions of the upper San Ramon Canyon area. Therefore a California gnatcatcher survey was conducted, consistent with California Dept. of Fish and Game protocol during nesting season. Findings of the gnatcatcher survey are included in Section 2.1.6 below.

Southern Coastal Bluff Scrub

Southern coastal bluff scrub is a plant community composed of several scrub species tolerant of coastal salt spray and winds. It is found along the mainland and the Channel Islands on steep bluffs. This plant community is in decline because of increasing coastal development and recreational damage by illegal trail construction and human-created erosion of bluff faces. Southern coastal bluff scrub is present along the entire bluff face. Although it is covered by the City's NCCP, a preconstruction survey and species relocation will be conducted as a precautionary measure.

Wild and Scenic Rivers

Based on review of the US Dept. of the Interior and US Fish and Wildlife Service web site resource (www.doi.gov), review of the CDNNB for this area, review of the City's NCCP, the site visit and reconnaissance survey the project is neither within, nor adjacent to a Wild and Scenic River System.

Protected Farmlands/Agriculture & Forestry Resources

The National Environmental Policy Act (NEPA) and the Farmland Protection Policy Act (FPPA, 7 USC 4201-4209; and its regulations, 7 CFR Part 658) require federal agencies, such as FHWA, to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and

efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

Based on review of the City's General Plan, and the Farmland Protection Policy Act (FPPA), as implemented by the Secretary of Agriculture, the project area is not located within a protected farmland and is not covered by the Williamson Act.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment (LESA) Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

The LESA model is composed of 6 different factors. Two land evaluation factors are based on measures of soil resource quality (composing 50% of score), and four site assessment factors provide measure to a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands (composing the other 50% of score). The LESA system is a point-based approach with separate ratings on a 100-point scale. When complete, the final score is measured by the LESA thresholds of significance. More detailed information on LESA can be found at: <http://www.consrv.ca.gov/dlrp/LESA/lesamodl.pdf>.

Based on review of the above mentioned resources, the proposed project is not located within, nor will impact designated agriculture and forestry resources. Based on review of historic aerial photos, the project area has never been utilized for any agricultural use for active forestry.

Invasive Species

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States (U.S.). The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration guidance issued August 10, 1999 directs the use of the State's invasive species list currently maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the NEPA analysis for a proposed project.

No invasive species will be utilized with landscape mitigation program. Annual maintenance of the Landscape Establishment Conformance Mitigation Plan will monitor invasive species and recommend removal if necessary.

2.1.6 Sensitive Wildlife Species/Threatened-Endangered Species

NRA, Inc. reviewed the available literature and used site photographs to determine what sensitive animal species may use the bluff. The scrub habitat on the bluff and the upland habitat in the drainage may provide habitat for some of these species, such as the house finch, mourning dove and northern mockingbird. The area to be disturbed in the maintained drainage channel does not provide suitable habitat for sensitive wildlife species because of its previously disturbed condition and periodic maintenance and cleaning.

Most of the wildlife observed on site were bird species. The most commonly observed were California towhee (*Pipilo crissalis*), western scrub jay (*Aphelocoma californica*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*) and house sparrow (*Passer domesticus*). Less commonly observed were wren (*Chamaea fasciata*), Bewick's wren (*Thryomanes bewickii*), and common raven (*Corvus corax*). The only reptile species observed was the western fence lizard (*Sceloporus occidentalis*). The only mammal species for which sign was observed was the striped skunk (*Mephitis mephitis*). Appendix B of the biological report contains a list of all wildlife species observed.

California Gnatcatcher

The California gnatcatcher (*Poliophtila californica californica*) is a small songbird that is a year round resident of sage scrub communities. Sage scrub communities preferred by this species are typically dominated by low-growing, drought deciduous and succulent shrubs, as well as sub-shrub species including California sage (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), brittlebush (*Encelia farinosa*), sage species (*Salvia* spp.), and cacti (*Opuntia* spp.).

California gnatcatchers begin nesting in mid to late February. Re-nesting attempts may be made into August. Territory size ranges from 2 to 40 acres. They have a repetitive, kitten-like mewing call and appear to be most vocal in the early morning and evening. Detection is exceedingly difficult if the birds are not vocalizing.

The original range for this species included all of the coastal sage scrub communities of southern California, from Ventura County south to San Diego and on into Mexico. This species also occurred in extensive coastal sage scrub habitat in Riverside County. Fragmentation or removal of sage scrub plant communities has reduced the known populations to scattered localities in Los Angeles, Orange, Riverside and San Diego counties. Even these populations are generally found only in the larger open space areas in and around development.

On March 25, 1993, the California gnatcatcher was listed by the Service as a threatened species pursuant to the Federal Endangered Species Act (ESA), and is a Species of Special Concern by the CDFG. Suitable habitat for the California gnatcatcher may exist within the vicinity of the project area. Therefore a California gnatcatcher survey was conducted by a Senior Avian Ecologist qualified by the CDFG to conduct gnatcatcher surveys.

Survey Results: Six surveys were completed at least one week apart within the breeding season (March 15 – June 30). The surveys occurred between 0700 and 1025 hours each day, within all portions of the project site containing potentially suitable coastal sage scrub habitat. A total of approximately 16.26 acres were surveyed. No coastal California gnatcatchers were observed during any of the six surveys and the site is considered unoccupied. The CNDDDB and City NCCP records coastal California gnatcatcher occurrence in the general vicinity of the project as of 2006. However, this occurrence is likely associated with intact, higher quality coastal sage scrub south and west of the site. Based on the negative findings of surveys and marginal quality of habitat onsite, no further actions with regard to coastal California gnatcatcher are recommended.

Cactus Wren

The coastal cactus wren (*Campylorhynchus brunneicapillus couesi*) is a subspecies of the cactus wren, which occurs throughout the Southwest and California. The coastal cactus wren is confined to coastal areas, breeding in coastal sage scrub that is dominated by extensive stands of prickly pear or cholla cactus (*Opuntia* spp.). The range of the coastal cactus wren once extended from Ventura to the border with Baja California. However, coastal development and loss of suitable habitat had reduced the population to less than 3,000 pairs as of 1990 (Rea and Weaver, 1990). These populations were divided up into colonies of varying size. According to Atwood (1990) the populations on the Palos Verdes Peninsula were relatively stable during the mid-1990s.

This species is threatened by development along the coast and in inland. It is listed as a Bird of Conservation Concern by the USFWS, and as a Species of Special Concern by the CDFG. There is no cactus-dominant habitat suitable for the coastal cactus wren within the immediate vicinity of the project area. The NCCP has records of nesting populations east of the canyon in the cactus-dominated scrub on the plateau above San Ramon Canyon.

Summary: Based on personal communication with the biologist conducting the gnatcatcher survey, no cactus wrens were observed during the survey.

Palos Verdes Blue Butterfly

The City's NCCP identified an historic Palos Verdes Blue Butterfly (PVBB) sighting west of the project area. Based on information from the biological report, no appropriate PVBB habitat was identified in the project area and no PVBB were observed. In addition, no PVBB were identified during the gnatcatcher survey. Therefore, no specific PVBB survey was conducted for this project.

Raptors, Migratory Birds and Habitat

Most of the raptor species (eagles, hawks, falcons and owls) are experiencing population declines as a result of habitat loss. As a group, raptors are of concern to state and federal agencies. Some, such as the peregrine falcon, have also experienced population losses as a result of environmental toxins affecting reproductive success, animals destroyed as pests or collected for falconry, and other direct impacts on individuals. Only a few species, such as the red-tailed

hawk and barn owl, have expanded their range in spite of or a result of human modifications to the environment. As a group, raptors are of concern to state and federal agencies.

Raptors and all migratory bird species, whether listed or not, also receive protection under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA prohibits individuals to kill, take, possess or sell any migratory bird, bird parts (including nests and eggs) except in accordance with regulations prescribed by the Secretary of the Interior Department (16 U. S. Code 703). Additional protection is provided to all bald and golden eagles under the Bald and Golden Eagle Protection Act of 1940, as amended. State protection is extended to all birds of prey by the CDFG Code, Section 2503.5. No take is allowed under these provisions except through the approval of the agencies or their designated representatives.

Based on the biological assessment, no suitable raptor nesting habitat occurs in the project area. The level of human activity along the project alignment has already impacted any nesting activity, and this impact is ongoing. The excavation, tunneling and various construction activities is not expected to significantly impact nesting migratory or raptor species. The project area may provide foraging habitat for raptors. The available habitat is mostly covered by dense weeds and grasses, but may be somewhat suitable for raptor species that hunt from the air. There is no substantial woodland perching habitat for arboreal raptor species. No significant loss to raptors and migratory birds or their habitats are expected, and therefore no mitigation is required.

Essential Fish Habitat

As indicated in the coastal resources of Regulations 2.1.2, the off shore habitat is important for fish species in this area. Access to the outlet structure will require movement of equipment along the shore during low tides from Royal Palms State Beach in the City of San Pedro, located approximately 1 mile south of the project. No grading will be required for construction equipment to travel along the shore. The project will not extend into the coastal waters, and no impacts to fish or wildlife are expected to occur with the implementation of Best Management Practices by the contractor during construction.

Black Abalone: The final black abalone critical habitat area has been published for a 3-mile expanse from the Torrance/Palos Verdes Estates border to Los Angeles Harbor. Mitigation will be incorporated to avoid any and all black abalone impacts along the construction access route or outlet structure area. A preconstruction survey, and species relocation if necessary, will be conducted.

Montrose Settlement Restoration Program: The Phase 2 Restoration Plan of the Montrose Settlements Restoration Program (MSRP) identifies three potential restoration sites in the ocean near the PV shelf near the vicinity of the project site. Part of the goal of the restoration plan is to build artificial reef modules for restoration of natural resources, including marine birds, fish and the habitats upon which they depend. The closest restoration site identified by MSRP Staff would be located approximately 1 mile off the coast where the storm drain outlet is proposed. Although the storm drain system could

carry sediment during storm events that would directly outlet to the ocean, it is not anticipated that sediment could be carried out 1 mile to the potential restoration site.

Habitat Fragmentation and Wildlife Movement

Wildlife movement and the fragmentation of wildlife habitat are recognized as important wildlife issues that must be considered in assessing impacts to wildlife. In summary, habitat fragmentation is the division or breaking up of larger habitat areas into smaller areas that may or may not be capable of independently sustaining wildlife and plant populations. Wildlife movement (more properly recognized as species movement) is the temporal movement of species along various types of corridors. Wildlife corridors are especially important for connecting fragmented wildlife habitat areas.

Habitat fragmentation has already occurred with the development of this area of the Palos Verdes peninsula and Friendship Regional Park immediately east of the project will not be impacted. The project will not add to the fragmentation of habitat. There are no substantial wildlife corridors on site. The project will not impede or significantly impact wildlife movement in this area. No significant impacts to habitat fragmentation and wildlife movement are expected to occur, and therefore no mitigation is required.

2.1.7 Biological Avoidance, Minimization and/or Mitigation Measures

The proposed project will have impacts to general biological resources, resulting in a minor loss of upland habitat (grassland, bare slope, and CSS). Table 3 below provides a breakdown of impacted areas.

TABLE 3
Project Summary Table of Habitat Impact Areas

Location	Lineal Feet	Cut CY	Fill CY	Habitat Impact area
Canyon Inlet Structure	200ft.	660cy	1,250 cy	0.04 acres jurisdictional drainage.
Canyon Tunnel	1,900 ft.	3,000 cy	-	0
Buttress Fill and Terrace drains	900 ft.	n/a	50,110 cy	0.37 acres Bare Slope. 1.36 acres Grassland. 0.03 acres jurisdictional drainage. 0.34 acres of CSS.
Access/maintenance road	350 ft.	2,400 cy	500 cy	Grassland impacts included in total above. CSS impacts included in total above.
Lower trench for cut and cover section of buried pipe	1,900 ft	7,090 cy	-	Grassland impacts included in total above.
Lower Tunnel	300 ft	Incl. in canyon tunnel quantity.	-	0
Outlet structure	50 ft	660cy	285 cy	0.02 acres Southern coastal bluff scrub.

Construction of the inlet structure and canyon stabilization will impact approximately 0.07 acres of jurisdictional drainage. As identified in the biological report, this jurisdictional drainage is not considered wetlands habitat. The filling of this jurisdictional drainage within the San Ramon Canyon will require appropriate mitigation as part of an ACOE 404 permit and RWQCB 401 permit. Post-construction re-vegetation of the new elevated streambed and affected canyon slopes with native vegetation will be required at a 3:1 ratio (0.21 acres total) through a Landscape Establishment Conformance Plan and described in further detail below. Re-vegetation activity will include a plant palette, consistent with the Resource Agency and Native Plant Society criteria, that lists exact species of plants to be restored and the native plants derived from local genetic sources be used. The re-vegetation program will be consistent with the City NCCP restoration guidelines set forth in Section 7.0 of the NCCP.

Landscape Establishment Conformance Mitigation Plan would include the following:

- o All related coordination and specification preparation required to enforce this establishment / mitigation plan as conditioned by the MND/FONSI and outside regulatory agencies shall be consistent with the City NCCP.
- o The plan will include a description of the enhancement and restoration activities, timelines, plant palettes, maintenance and monitoring.

The monitoring would include:

- ✓ Detailing physical work to be performed by others to prevent the re-invasion of non-native plants.
- ✓ Prepare annual report after the initial mitigation implemented, photo documentation from designated “photo stations.”
- ✓ Documentation of re-vegetation survival percentages/sizes/species.
- ✓ Direct/document the number and species of replacement plants (shrubs & trees).
- ✓ Documentation of the methods used to assess all parameters.
- ✓ Survival goals include: minimum of 80% on year one and 100% thereafter and/or 75% coverage with native woody species after 3-years and 90% after 5-years. Non-native species shall comprise less than 5% of the cover after 5-years. Monitoring and replacement plants will be required for the 5-year period mentioned, with the option of stopping the plan 2-years prior IF all success criteria is met.

We recommend the following be included as part of the application process:

- A qualified biologist/plant restoration specialist to retrieve and replant any of the sensitive plant species that may be impacted prior to construction on the bluff.
- All spills, leaks or other losses of oils and other hazardous or toxic materials will be immediately cleaned up. Under no circumstances is any hazardous or toxic material to be allowed in or near the maintained drainage channel.

2.2 Cultural Resources

Mr. Rob Wlodarski, Registered Archaeologist and Principal Investigator, performed a cultural resources survey consistent with Section 4(f) of the US Dept. of Transportation Act and Section 106 of the National Historic Preservation Act of 1966, to locate any recorded cultural resources. The methods employed for the cultural resources survey included:

- A review of previously filed site records and reports at the California Historical Resources Information System (CHRIS) inventory center for prehistoric sites and historic landmarks in the project area from the South Central Coastal Information Center (SCCIC).
- A comprehensive field survey reconnaissance of the San Ramon Canyon project area and construction access locations.
- A review of the regional literature for previously published archaeological sites and historical landmarks associated with the region.
- A review of aerial photos of the San Ramon Canyon drainage area.

2.2.1 Regulatory Setting

“Cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966, as amended, (NHPA) sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the Advisory Council’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA’s responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Pilot Program (23 CFR 327) (July 1, 2007).

The Archaeological Resources Protection Act (ARPA) applies when a project may involve archaeological resources located on federal or tribal land. ARPA requires that a permit be obtained before excavation of an archaeological resource on such land can take place. Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the “use” of land from historic properties.

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way. Include the following sentence as applicable. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

2.2.2 Regional Archaeological Studies

An overview of the regional archaeological and historical literature provided the background information contained in the cultural resources survey. It summarizes current archaeological knowledge and the cultural traditions represented in the region, as well as unresolved problems of information and interpretation that give significance to the heritage resources that might be encountered. No reference was found to any published archaeological sites or historical landmarks in and adjacent to the project area.

2.2.3 Record Search

A records search was performed at the South Central Coastal Information Center August 25, 2010 and updated by a professional archaeologist on August 4, 2011 to review recorded prehistoric or historic archaeological sites or isolates or historic properties exist within the boundaries of the project area. Nine previously recorded prehistoric archaeological resources were noted within a ½ mile radius of the project. One site is located within the project site. No sites are listed on the Archaeological Determination of Eligibility (DOE) list. No isolates are located within the project site.

No National Register of Historic Places are identified (1979-2005 and supplements to date). No California Register of Historic Resources exists (1992, with supplemental information to date). No California Historical Landmarks are listed (1995, with supplemental information to date). No California Points of Historical Interest are noted (1992, with supplemental information to date). No State Historic Resources Commission issues are presented (1980-present. Minutes from quarterly meeting). The California Historic Resources Inventory (HRI) lists no properties within the search radius.

2.2.4 Cultural Resource Survey/ Field Reconnaissance

A pedestrian survey was performed on July 30, 2011 by RPA certified archaeologist Robert Wolodarski and Wayne Bonner. No visible signs of prehistoric or historic archaeological resources were observed during the survey. All exposed surface terrain and fortuitous exposures such as rodent burrows, drainage cuts, and graded, cleared, or landscaped areas were thoroughly inspected for signs of cultural resources. No resources were found.

Any proposed improvements or modifications within the project area will have no direct, adverse impact on known cultural resources. Since the nature of an on-foot surface reconnaissance can only confidently assess the potential for encountering surface cultural resource remains; therefore, customary caution is advised in developing within the project area. Should unanticipated cultural resource remains be encountered during land modification activities, work must cease and be relocated, and the lead agency contacted immediately to determine appropriate measures to mitigate adverse impacts to the discovered resources. Cultural resource remains may include artifacts, shell, bone, features, altered soils, foundations, trash pits and privies, etc. If human remains are encountered during excavations associated with this project, all work must halt, and the County Coroner must be notified (Section 7050.5 of the California Health and Safety Code). The coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, the coroner will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the Public Resources Code. The MLD should make his/her recommendations within 48 hours of their notification by the NAHC. This recommendation may include A) the nondestructive removal and analysis of human remains and items associated with Native American human remains; (B) preservation of Native American human remains and associated items in place; (C) relinquishment of Native American human remains and associated items to the descendants for treatment; or (D) other culturally appropriate treatment.

2.2.5 Native American Consultation

Attached to this document is evidence that interested parties associated with the Native American Heritage Commission (NAHC) have been consulted. Based on the letter received from Mr. Dave Singleton with the NAHC and dated August 10, 2010, a record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate area. SFC was provided a list of Native Americans for consultation for Los Angeles County. This list was compared with the City distribution list for local tribes and Native American interests. Project information was directed to each tribe and/or individual listed. Nine (9) Native American tribes were sent separate correspondences via certified mail and each has been attached to this report. Those tribes with email addresses were also sent the same information electronically. Two responses were received. One from John Tommy Rosas with the Tongva Ancestral Territorial Tribal Nation, and one from Andy Sala from the Gabrielino Band of Mission Indians. Both recommended monitoring during excavation.

2.2.6 State Historic Preservation Officer

Consistent with Section 106 of the National Historic Preservation Act, SFC completed and submitted a complete package to the State Historic Preservation Office (SHPO) on September 23, 2011. Approval is pending.

2.2.7 Paleontological Resources

Paleontology is the study of life in past geologic time based on fossil plants and animals. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects. (e.g., Antiquities Act of 1906 [16 USC 431-433], Federal-Aid Highway Act of 1960 [23 USC 305]), and the Omnibus Public Land Management Act of 2009 [16 USC 470aaa]). Under California law, paleontological resources are protected by the California Environmental Quality Act. The cultural resource assessment did not indicate paleontological resources in the project area.

2.2.8 Cultural Resource Avoidance, Minimization and/or Mitigation Measures

Based on the findings and conclusions noted in the cultural resource report, the project will have no direct, adverse impact on known cultural resources. However, the standard mitigation has been incorporated here should unanticipated cultural resource remains be encountered during earth work activities. Impacts are still less than significant.

Should unanticipated cultural resource remains be encountered during land modification activities, work must cease and be relocated, and the lead agency contacted immediately to determine appropriate measures to mitigate adverse impacts to the discovered resources. Cultural resource remains may include artifacts, shell, bone, features, altered soils, foundations, trash pits and privies, etc. If human remains are encountered during excavations associated with this project, all work must halt, and the County Coroner must be notified (Section 7050.5 of the California Health and Safety Code). The coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, the coroner will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the Public Resources Code. The MLD should make his/her recommendations within 48 hours of their notification by the NAHC. This recommendation may include A) the nondestructive removal and analysis of human remains and items associated with Native American human remains; (B) preservation of Native American human remains and associated items in place; (C) relinquishment of Native American human remains and associated items to the descendants for treatment; or (D) other culturally appropriate treatment.

2.3 Geology - Soils - Seismicity

GMU Geotechnical Inc. performed a geotechnical investigation to evaluate the subsurface soil and bedrock conditions along the drainage system's alignment in order to provide geotechnical recommendations for design and construction.

2.3.1 Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features". Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. The Department's Office of Earthquake Engineering is responsible for assessing the seismic hazard for Department projects. The current policy is to use the anticipated Maximum Credible Earthquake (MCE), from young faults in and near California. The MCE is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

2.3.2 Geologic Setting

The Palos Verdes Peninsula is primarily underlain by Tertiary sedimentary units over basement rock of the Catalina Schist. Large-scale anticline folding and faulting have been uplifted over time and generally trending northwest-southeast. Tectonic uplift in the area may be primarily due to movement on the Cabrillo and Palos Verdes fault zones. Quaternary sediments overlie the Tertiary materials in much of the lower portions of the peninsula due to deposition of sediments by wave action during uplift and through sediment deposition due to gravity, erosion or in-site weathering.

The two most significant landslide features in the Palos Verdes area are the Portuguese Bend landslide, located approximately 2 miles west of the project, and the South Shores landslide, located partially within the project area.

The South Sores landslide is considered to be approximately 16,200 years old, and failed as a clock glide type failure. Some geologist include the currently active Tarapaca landslide as part of the South Sores landslide, while others map the active landslide as originating upslope of the limits of the dormant landslide mass. Bedding inclinations to the north of the site are generally oriented towards the south. Bedding inclinations to the east of the site are generally oriented to the west. And inclinations to the west of the site are generally oriented to the east. This synclinal geologic structure likely contributed to and controlled the lateral extent of the failure of the South Shores landslide, which dominate the project site.

The Tarapaca landslide appears to have failed on a continuous, planar bedding plane surface within the Altamira Shale bedrock east of the South Shores landslide. The most likely scenario

for the failure of the Tarapaca landslide is an over-steepening of the canyon walls, resulting in a “daylighted” adverse bedding condition.

2.3.3 Surface Conditions

Topsoil

Topsoil was observed during the geotechnical field investigation. Where observed, the topsoil consisted of dark brown silty clay, dry to damp, with no soil structure.

Recent Alluvium

These materials are generally located within San Ramon Canyon, on the canyon floor and in a relatively thick deposit on the northern side of the intersection of the canyon and W. 25th Street. Where encountered, the recent alluvium generally consisted of dark brown clay with fine to medium grained sand. Generally moist and very soft, to soft with scattered to abundant bedrock fragments and organic materials, the thickest deposit of these recent alluvial materials was found to be about 31 feet thick.

Artificial Fill

These materials are generally located underlying and adjacent to the paved roadways. PVDE and W. 25th Street, and as such were likely placed during grading of the roads pre-1950s. Where observed, fill materials were dark brown, dry to damp, soft to firm silty clay and sandy silt with fragments of bedrock. The maximum thickness of these fill soils was observed to be about 18 feet.

Older Alluvium

Deposits of older alluvium were located in the upper portions of San Ramon Canyon. Where observed by the geologist within the canyon bottom and sidewalls, these materials consisted of dark brown clayey silts with scattered to abundant bedrock fragments and rare charcoal fragments. These soils were moderately well-developed, with blocky to columnar structure and local porosity. The maximum thickness is estimated to be less than 50 feet.

Recent Landslide Debris

Recently failed materials derived from bedrock and ancient landslide debris were observed during the field exploration on the east wall of San Ramon Canyon. These materials are referred to in geologic publications as the Tarapaca landslide. This landslide is considered to be actively moving. The materials of the Tarapaca landslide consist of loose bedrock fragments up to cobble-sized with a soil matrix. Pockets of topsoil with organic debris were observed within the landslide mass.

Ancient Landslide Debris

These materials, known as the South Shores landslide, underlie the majority of the project site and were encountered within all of the geotechnical boring logs. These materials consisted of remnant blocks of bedrock up to 10 feet thick within a silty clay matrix. These materials are varicolored, soft to hard, dry to moist, and contain clasts of siliceous siltstone that can be very hard.

Altamira Shale Member, Monterey Formation

Bedrock of the Altamira Shale member of the Monterey Formation underlies the project site at depth, and is exposed within portion of San Ramon Canyon. The Altamira Shale member consisted of interbedded siltstone and siliceous siltstone with tuffaceous siltstone, bentonitic tuff, and bentonite. These beds are generally thinly to thickly bedded, planar, with some local soft sediment deformation. The materials are generally gray to olive brown, damp to moist, firm to very hard, with scattered fracturing and jointing.

2.3.4 Groundwater

Groundwater was not observed during the geologic investigation. However, groundwater encountered at 103 feet appeared to be seepage or a perched zone. No surface water was encountered during the investigation; however, it is likely water flows in this canyon during the winter months.

2.3.5 Faulting and Seismicity

The project site is located in the highly seismic Southern California region within the influence of several fault systems that are considered to be active or potentially active. An active fault is defined by the State of California as a “sufficiently active and well defined fault that has exhibited surface displacement within Holocene time (the last 11,000 years)”. A potentially active fault is defined by the State as a “fault with a history of movement within Pleistocene time (between 11,000 and 1.6 million years ago).”

The site is not within an Alquist-Priolo Earthquake Fault Zone and no known active faults are shown on current geologic maps as crossing the site. The nearest known active fault is the Palos Verdes fault, which is located approximately 5.0 kilometers from the site and is capable of generating a maximum earthquake magnitude of 7.3. The site is also located within 15.6 kilometers of the Newport-Inglewood fault, which is capable of generating a maximum earthquake magnitude of 7.1. Given the proximity of the site to these and numerous other active and potentially active faults, the site will likely be subject to earthquake ground motions in the future.

2.3.6 Geologic Hazards

The City of Rancho Palos Verdes has developed a Local Coastal Plan (LCP) per the requirements of the Coastal Zone Management Act (CZMA) of 1972 and the California Coastal Commission requirements. In the coastal areas of the City, the LCP defines areas of extreme Geologic and slope hazards associated with the bluff and bluff face.

The storm water pipeline lies within several Coastal Resource Management (CRM) Districts with designations of CRM-1 Extreme Slope, CRM-2 High Slope and CRM-3 Hazards. These designations are areas for consideration of public health and safety and generally pertain to restrictions to the development in these areas. Any development within CRM-2 is required to

perform independent engineering studies conceding the geotechnical, soils and other stability factors, including seismic considerations.

Slope Stability

Tarapaca Landslide

To evaluate how much fill is required in the canyon bottom to act as a gravity buttress, result of the analyses indicate that approximately 10 to 30 feet of fill will be required to obtain a safety factor of approximately 1.23. Approximately 20 to 30 feet of fill placed in the canyon at the toe of the landslide would be required to obtain a safety factor of approximately 1.5.

The coastal bluff at the existing outlet structure is in a state of constant erosion and is subject to slope failures due to toppling blocks loosened from the cliff face and rock falls due to over steepened slopes along the coast line. Furthermore, the coastal bluff is located within a Seismic Hazard Zone for Earthquake-Induced Landsliding (CDMG, 1999). However, since the tunnel crown at the outlet structure will be a depth of more than 100 feet below the top of the bluff, the tunnel runs perpendicular to the bluff, and the tunnel opening will be small relative to the geometry of the bluff, the proposed tunnel construction will not adversely affect the stability of the slope. Furthermore, engineering controls will be proposed that will mitigate the introduction of water up-gradient of the slope.

Lower Switchback PVDE

Existing slope stability safety factors for PVDE were estimated at approximately 1.4. The analysis indicates that the existing slope face would have to be eroded back approximately 35 feet before the roadway would be in a state of imminent failure. At the current rate of 5 feet of erosion per year, PVDE may fail in the next 7 years.

Upper Switchback PVDE

Existing slope stability safety factors for PVDE were estimated at approximately 1.3. The analysis indicates that the existing slope face would have to be eroded back approximately 40 feet before the roadway would be in a state of imminent failure.

2.3.7 Geologic Avoidance, Minimization and/or Mitigation Measures

The report concluded that the proposed project is geotechnically feasible, provided their recommendations are incorporated into the project design and construction. Therefore, the project will require consistency with Public Resources Code Section 2693(c). Environmental impacts will be less than significant.

2.4 Hydrology/Water Quality/Flood Control

2.4.1 Existing Hydrologic Setting

The total hydrologic area for San Ramon Canyon is 187 total acres of tributary from which debris-laden flows spill out onto 25th Street and quickly overwhelm the existing deficient City of Los Angeles storm drain system, which is suffering from dwindling interception capacity due to sediment build up over the last 40-years. The proposed San Ramon Canyon Drainage System will be designed to convey either a 100-year storm (debris-laden flows) out-letting to the coastal bluff or a 50-year storm (clear water flows) out-letting into the CLA owned/maintained storm drain.

Out of the 187 acres, 160 acres is located within the City of Rancho Palos Verdes with the remaining 27 acres being tributary from the County of Los Angeles. The steep watershed naturally concentrates run-off in high concentrations (Q100 = 262 cfs and Q50 = 217 cfs) at high velocity flows for relatively short durations that are capable of conveying a considerable amount of debris.

The periodic flooding associated with almost every storm event is significantly exacerbated by the Tarapaca Landslide that provides a continuous source for new sediment to the creek bed, which in turn is transported downstream to 25th Street. A vicious circle of undercutting of the toe of the Tarapaca Landslide and subsequent land movement refills the creek bed with newly loosened sediment. Further, the Tarapaca Landslide is redirecting powerful storm flows towards the toe of the slopes of the two PDVE switchbacks resulting in an erosion rate of approximately five feet per year, which could destabilize PVDE if it is allowed to encroach as little as 35-feet additional towards the switchbacks into the toe of the existing slope.

The situation is further impacted by the deficient existing inlet structure at 25th Street that was originally constructed as a 42" CMP culvert crossing under 25th Street resulting in a 25' high imported fill roadway embankment that constricted flows and eventually filled the depression with sediment. Over the past 40 to 50 years, as sediment built up, the original inlet pipe was extended multiple times to the new/raised sediment surface to allow at least some of the flow to make it to the culvert crossing. More recently, growing environmental constraints contributed to County of Los Angeles' lack of maintenance for fear of disturbing nesting birds, etc. and/or incurring fines for lack of proper environmental studies and clearances to do the required maintenance work.

2.4.2 Coastal Zone/Coastal Barrier Resources

The City of Rancho Palos Verdes has developed a Local Coastal Plan (LCP) per the requirements of the Coastal Zone Management Act (CZMA) of 1972 and the California Coastal Commission requirements. In the coastal areas of the City, the LCP defines areas for preservation of natural drainage systems, including hydrologic factors. For this project, the coastal zone area is the portion of the project seaward of the lower PVDS switchback.

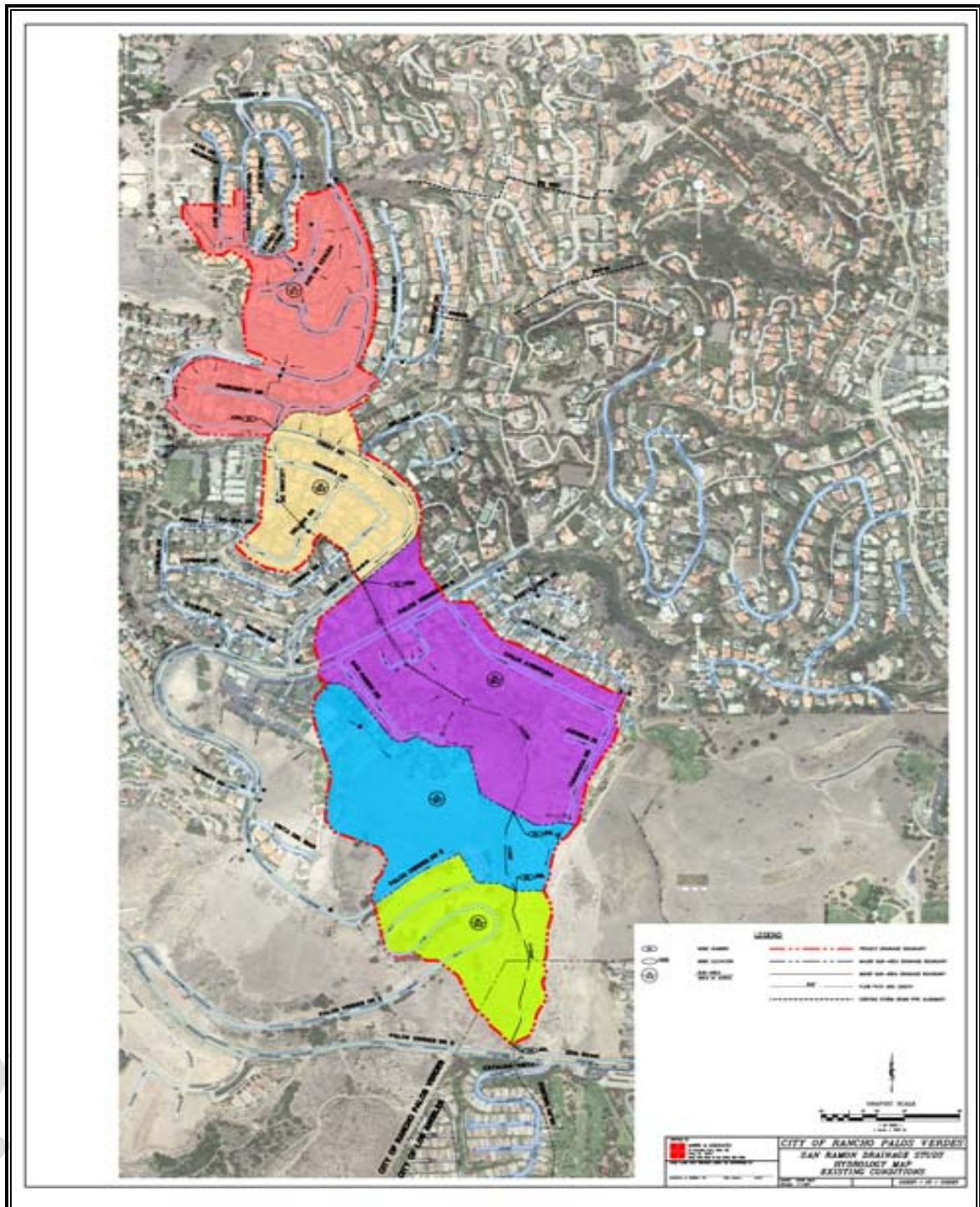


Figure 18: Hydrology Map

The proposed storm drain lies within a Coastal Resource Management (CRM) District with a terrestrial designation of CRM-10. This is an area that contains other natural vegetation areas, meaning that this District has some terrestrial wildlife value. The offshore waters in this CRM are protected under the LCP as a marine preservation area, meaning that all marine resources must be protected against impacts. They include kelp beds, abalone habitat, rock reef habitat and their associated wildlife.

The Coastal Barrier Resources Act (CBRA) is managed by the Federal Emergency Management Agency (FEMA) and implemented by the US Fish and Wildlife Service. The CBRA restricts development on the Coastal Barrier Resources System (CBRS) which serves as an important buffer between coastal storms and inland areas. Coastal barriers also provide a protective habitat for aquatic plants and animals. Implementation of the LCP and Coastal Permit for the portion of the project seaward of PVDS will be required to comply with the CBRA.

2.4.3 Water Quality and Stormwater Runoff

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme.

Watershed Management

The Los Angeles Regional Water Quality Control Board (RWQCB) has the responsibility to require that projects address groundwater and water quality issues. Their authority extends to all waters of the State (of California). Under the Porter-Cologne Act of 2003, the RWQCB has extended its responsibilities to include impacts to water quality from non-point source pollution.

The storm drain project is located within the Santa Monica Bay Watershed Management Area (WMA) of the LARWQCB and encompasses an area of approximately 414 square miles. Its borders reach from the crest of the Santa Monica Mountains on the north and from the Ventura-Los Angeles County line to downtown Los Angeles. From there it extends south and west across the Los Angeles plain to include the area east of Ballona Creek and north of the Baldwin Hills.

A considerable number of monitoring programs have been implemented in the Santa Monica Bay WMA, particularly over the last twenty years. Sampling efforts tend to center around assessing urban runoff effects in general along the coastline and reservoirs of PCBs and DDT contaminated sediment in the area of the Palos Verdes Shelf. Four statewide monitoring programs, State Mussel Watch, Bay Protection and Toxic Cleanup, Coastal Fish Contamination Program and Toxic Substances Monitoring, had focused on biological measurements.

The data from these programs indicate that in general the open coastline is much cleaner than the Bay's enclosed waters, except with regards to DDT and PCBs on the Palos Verdes Shelf.

Pollutants of particular concern are chlordane, DDT, copper, and zinc. The Bay Protection and Toxic Cleanup Program (BPTCP) has listed the Santa Monica Bay - Palos Verdes Shelf area as a toxic hot spot for DDT and PCBs human health advisories (fishing) and National Academy of Science (NAS) exceedances of DDT levels in fish.

Section 303(d) of the Clean Water Act (CWA) requires that the State identify a list of impaired water-bodies and develop and implement Total Maximum Daily Loads (TMDLs) for these water-bodies (33 U.S.C. §1313(d)(1)). A TMDL specifies the maximum amount of a pollutant that a water-body can receive, still meet applicable water quality standards and protect beneficial uses.

Abalone Cove Beach, located east of the shore line from the proposed storm drain outlet structure, is listed on the Clean Water Act (CWA) 303(d) List of Water Quality Limited Segments as having High TMDL for nonpoint source pollutants and beach closures. The same area is also listed with Low TMDL's for DDT and PCB's, also from non-point sources. A fish consumption advisory for PCB's has been listed for Abalone Cove Beach.

Storm Water Programs MS4/NPDES

The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District (permittees) discharge or contribute to discharges of storm water and urban runoff from municipal separate storm sewer systems (MS4s), also called storm drain systems. The discharges flow to water courses within the Los Angeles County Flood Control District and into receiving waters of the Los Angeles Region. These discharges are covered under countywide waste discharge requirements contained in Order No. 96-054 adopted by the Regional Board on July 15, 1996. Order No. 96-054 also serves as a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of municipal storm water into surface waters. The Report of Waste Discharge (ROWD), for renewal of an NPDES permit, includes a proposed Storm Water Quality Management Program (SQMP) and a Monitoring Program. The proposed SQMP contains programs in the following areas: a) Public Information and Participation; b) Development Planning, c) Development Construction, d) Public Agency Activities and e) Illicit Connection/Illicit Discharge Elimination Program.

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

Under the Los Angeles County existing MS4 Permit, the City of Rancho Palos Verdes will require compliance with the NPDES for excavation, trenching, and dewatering adjacent to the ocean and at the proposed inlet structure. A Storm Water Pollution Prevention Plan (SWPPP) should be prepared to address construction storm water runoff. The SWPPP may be incorporated into the City's Water Quality Management Plan. All construction activity will be required to comply with construction site runoff control minimum control measures, as outlined by the LARWQCB.

2.4.4 Sole-source Aquifer/Drinking Water Supplies

The project is not located in or near the four (4) sites in California that have been designated as sole-source aquifers (Fresno County Aquifer, Santa Margarita Aquifer - Scotts Valley [northern California], Camp/Cottonwood Creek and Ocotillo-Coyote Wells Aquifers [southern California/Mexico border]). Based on information from the City of RPV, the canyon does not overlie a groundwater basin. Therefore the project will not impact drinking water supplies.

2.4.5 Flood Control

The base floodplain is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the base floodplain."

Flood inundation hazards are those associated with major atmospheric events that result in the inundation of developed area, due to overflows of nearby stream courses or inadequacies in local storm drain facilities. The general project area is located within Flood Insurance Rate Map (FIRM) panel 06037C2027F. Within the coastal region and throughout the City, the County Flood Control District and the County Roads Department are responsible for the operation and maintenance of flood control channels, storm drains, and culverts. Flood control and water quality are tied to requirements from the LARWQCB which were previously discussed above.

2.4.6 Hydrologic Avoidance, Minimization and/or Mitigation Measures

NPDES Permit for General Construction Activities will be required for lineal trenching, excavation and dewatering in accordance with the Regional Water Quality Control Board. The NPDES permit will dictate the required water quality allowed to be discharged during construction and specify BMP's used during construction. The tunnel outlet point to the beach will be required to be fully lined and bordered with sandbags so that no debris or construction water of any kind is allowed to the ocean. The tunneling operations will be required to use conveyors or other means other than hydraulic slurry pumping to convey the spoils so as to prevent a potential spill onto to the beach.

All spills, leaks or other losses of oils and other hazardous or toxic materials will be immediately cleaned up. Under no circumstances is any hazardous or toxic material to be allowed in or near the maintained drainage channel.

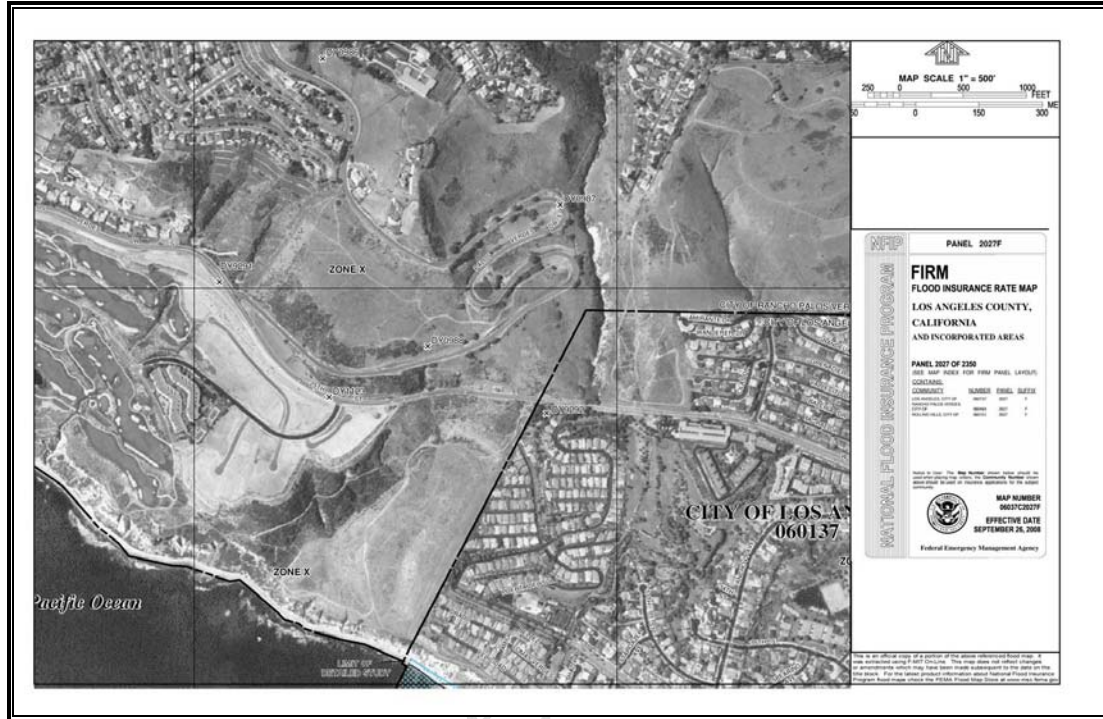


Figure 19: FIRM Flood Insurance Rate Map

2.5 Air Quality

2.5.1 Federal Regulatory Setting

The Federal Clean Air Act (FCAA) as amended in 1990 is the federal law that governs air quality. The California Clean Air Act of 1988 is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (ARB), set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and State ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns. The criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM, broken down for regulatory purposes into particles of 10 micrometers or smaller – PM₁₀ and particles of 2.5 micrometers and smaller – PM_{2.5}), lead (Pb), and sulfur dioxide (SO₂). In addition, State standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H₂S), and vinyl chloride. The NAAQS and State standards are set at a level that protects public health with a margin of safety, and are subject to periodic review and revision. Both State and Federal

regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics within their general definition.

2.5.2 Climate

The climate in the City of Rancho Palos Verdes, as in all of Southern California, is controlled largely by the strength and position of the subtropical high-pressure zone over the Pacific Ocean. It maintains moderate temperatures between 67 degrees and 50 degrees Fahrenheit and comfortable humidity's, and limits precipitation to a few storms during the winter "wet" season. Temperatures are normally mild with rare extremes above 100° or below freezing. Daily and seasonal variations above the annual mean temperature are small.

Winds in the project area are almost always driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime, on-shore sea breezes. At night, the wind generally slows and reverses direction traveling toward the sea. Wind direction will be altered by local canyons, with wind tending to flow parallel to the canyons. During the transition period from one wind pattern to the other, the dominant wind direction rotates into the south and causes a minor wind direction from the south. The frequency of calm winds (less than 5 miles per hour) is less than 15 percent. Therefore, there is little stagnation in the coastal area, especially during busy daytime traffic hours.

2.5.3 Air Quality Management

The City is located in the South Coast Air Basin (SCAB). Air quality management planning is the responsibility of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The SCAQMD sets and enforces regulations for stationary sources in the basin. The CARB is primarily responsible for controlling motor vehicle emissions. The nearest air quality monitoring station is located to the east in Long Beach (Station 72, Los Angeles County, APCD).

The SCAQMD in coordination with the Southern California Association of Governments (SCAG) has developed an Air Quality Management Plan (AQMP) for the air basin. Due to the trough-like nature of the basin, the SCAB has been designated a non-attainment area for ozone, carbon monoxide, nitrogen dioxide, total suspended particulates, PM 2.5 and lead. The AQMP has the goal of achieving healthful levels of air quality and is mandated by State and Federal laws. Included in the plan are new stationary and mobile source controls, and controls on indirect sources such as shopping centers or stadiums which attract large number of vehicles. The AQMP is designed to accommodate a moderate amount of new development and growth throughout the basin. The AQMP projections and mitigations are based on the SCAG Growth Forecasts.

The proposed project would not adversely affect the AQMP. As stated previously, the AQMP is designed to accommodate new development and growth based on SCAG Growth Forecasts. Since the proposed storm drain construction would not directly generate new population or growth, and is being considered primarily due to the condition of the existing San Ramon

Canyon area drainage pattern, the criteria and issues of the AQMP are not applicable to the project, and are not anticipated to be affected.

2.5.4 Ambient Air Quality

Air quality within the Rancho Palos Verdes area is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. The data indicates that mobile sources are the major source of regional emissions. Motor vehicles account for 46 percent of reactive hydrocarbon emissions, 59 percent of nitrogen oxide emissions, and 87 percent of carbon monoxide emissions.

As indicated above, the AQMP is designed to accommodate new development and growth based on SCAG Growth Forecasts. The proposed storm drain construction would not directly generate new population or growth and therefore would not impact ambient air quality standards in Rancho Palos Verdes.

2.5.5 Short Term Construction Activity

The California standard for total suspended particulates has been defined as particles less than 10 micrometers aerodynamic diameter (PM₁₀). The standards are 30 ug/m³ (annual geometric mean) and 50 ug/m³ (24 hour average).

For regionally important pollutants, the SCAQMD has identified emission levels that should be considered as potentially regionally significant. For construction activities, the AQMD's significance thresholds are as follows:

AQMD's SIGNIFICANCE THRESHOLDS

Regional Organic Gases (ROG)	75 lbs/day
Nitrogen Oxides (NO _x)	100 lbs/day
Particulate Matter (PM-10)	150 lbs/day
Sulfur Oxides (SO _x)	150 lbs/day
Carbon Monoxide (CO)	550 lbs/day

These thresholds, in conjunction with any microscale violations of clean air standards in the immediate vicinity of any construction activity, are therefore the appropriate criteria by which to evaluate air quality impacts.

Short-term temporary impacts will result from construction activities associated with proposed storm drain. Air pollutants will be emitted by construction equipment which will be emitted into the atmosphere from equipment exhaust. Secondary construction-related impacts to air quality will result from fugitive dust emitted from excavation and backfill. Air pollutants will also be emitted from construction worker commutes. Project-related impacts are anticipated to be short-term in duration, and will occur only during construction of the project. Mitigation measures will be implemented to ensure low sulfur fuel burning construction equipment and dust control.

Construction of the entire length of the storm drain would not occur simultaneously due to traffic issues.

Construction activities generate substantial quantities of large diameter material. Such dust, which settles out on nearby parked cars, foliage, and other surfaces, is more of a soiling nuisance than a potential health impact. It is, however, the greatest source of nuisance complaints when construction activities occur in close proximity to sensitive receptors such as schools, residences, and churches. Based on the approximate length of the proposed storm drain and the proposed construction schedule of approximately 5 to 30 lineal feet per day, it is estimated that excavation activity will take approximately 86 weeks (21.5 months) with a total construction schedule of 69 weeks (17 months) due to overlapping operations.

A program of good housekeeping and dust control will be implemented to reduce nuisance potential. With such a program, and given the transitory nature of impact potential, soiling nuisance impacts can be maintained at less than significant levels. Recommended measures for such control are listed under impact mitigation.

Heavy-duty equipment emissions are difficult to quantify because of day-to-day variability in construction activities and equipment used. However, based on the type of trenching excavation proposed, backhoes, front-end wheeled loaders, and heavy trucks, are equipment typical of construction activities of this sort. Typical emission rates for a front-end wheeled loader are provided below.

TYPICAL EMISSION RATES FOR WHEELED LOADER
(Grams per Hour)

<u>POLLUTANTS</u>	<u>EMISSION RATE</u>
Carbon Monoxide	260
Nitrogen Oxides	858
Hydrocarbons	113
Sulfur Oxides	83
Particulates	78

Source: SCAQMD, Air Quality Handbook

Emissions will be generated by construction equipment and at times may seem excessive to adjacent residents. However, the level of impact can be mitigated to less than significant levels with appropriate mitigation. While approximately 90% of construction equipment utilizes sulfur burning diesel fuels, SCAQMD requires construction equipment to utilize at least low-sulfur burning fuels. Non-sulfur burning construction vehicles may be cost prohibitive under the City's current budget for this project. Therefore the use of non-sulfur burning fuel use will be a recommendation and not a requirement.

In summary the proposed project will not result in construction-related emissions which are expected to exceed impact significance thresholds for any of the regionally significant pollutants.

No short-term or long-term impacts on climate or air quality management are anticipated. All such construction related air impacts are considered less than significant, given the recommended measures to mitigate temporary impacts and the short duration of construction.

2.5.6 Greenhouse Gases and Global Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gases (GHGs), particularly those generated from the production and use of fossil fuels.

Regulatory Setting

Senate Bill No. 97, Chapter 185, amended CEQA guidelines to be able to address Greenhouse Gases (GHG) and the effects of Global Warming/Climate Change. The California Global Warming Solutions Act of 2006 (Assembly Bill No. 32) designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emission of greenhouse gases that cause global warming in order to reduce emission of greenhouse gases. This bill will require the California State Office of Planning and Research, by July 1, 2009, to prepare, develop, and transmit to the Resource Agency guidelines for the feasible mitigation of greenhouse gas emissions or the effect of greenhouse gas emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption.

Greenhouse Gas Emissions

Common GHG include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride (SF6), ozone, and aerosols. Natural processes and human activities emit GHG. The accumulation of GHG in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHG, the earth's surface would be about 34 degrees Centigrade (°C) cooler (CAT 2006). However, it is believed that emissions from human activities, such as carbon based electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Auto Emissions

The United States Bureau of Transportation Statistics suggests that an average United States "trip" is about 11.4 miles. The amount of gasoline consumed per year can be estimated by multiplying the total miles traveled per project trip by the United States fuel economy average of 25 miles per gallon. Combustion of one gallon of gasoline produces about 19 pounds of carbon dioxide.

Electrical Power Emissions

Electrical power greenhouse gas emissions are a function of total project demand. Approximately 343 tons of carbon dioxide is produced for each megawatt hour of power generated by California electrical suppliers.

Natural Gas Emissions

Greenhouse gas emissions associated with the combustion of natural gas are a function of natural gas use at buildout and carbon dioxide emissions produced when a unit of natural gas is combusted. Natural Gas produces approximately 0.05467 tons of carbon dioxide per 1,000 cubic feet combusted.

Other Greenhouse Gas Emissions

Emissions not included above include methane emissions from sources such as wastewater treatment plants, solid waste that is landfilled, and potentially other non-carbon dioxide greenhouse gas emissions that occur as a result of a project (e.g., sulfur hexafluoride emissions from transformers installed as part of electrical infrastructure). Landfill emissions are separately regulated and methane gas recovery is a required element of that regulatory program

Implementation

The approaches to CEQA analysis of climate change and GHG emissions are in their infancy and still evolving. Lead agencies throughout the State have approached GHG in various ways. Several White Papers have been developed and reviewed as part of this Initial Study for applicability to this project.

CEQA requires an agency to engage in forecasting “to the extent that an activity could reasonably be expected under the circumstances. An agency cannot be expected to predict the future course of governmental regulation or exactly what information scientific advances may ultimately reveal.” (CEQA Guidelines section 15144, citing the California Supreme Court decision in *Laurel Heights Improvement Association v. Regents of the University of California* [1988] 47 Cal. 3d 376). CEQA does not require an agency to evaluate an impact that is “too speculative” provided that the agency identifies the impact, engages in a “thorough investigation” but is “unable to resolve an issue,” and then discloses its conclusion that the impact is too speculative for evaluation. (CEQA Guidelines Section 15145). Additionally, CEQA requires that impacts be evaluated at a level that is “specific enough to permit informed decision making and public participation” with the “production of information sufficient to understand the environmental impacts of the Proposed Project and to permit a reasonable choice of alternatives so far as environmental aspects are concerned.” (CEQA Guidelines Section 15146).

Global Climate Change impacts are a result of cumulative emissions from anthropogenic activities in the region, the State, and the world. Based on an investigation of compliance with local air quality thresholds and future long-term operational impacts, the proposed Project would not have the potential to result in emissions associated with greenhouse gas emissions and global climate change.

2.5.7 Air Quality Resource Avoidance, Minimization and/or Mitigation Measures

Short-term temporary impacts will result from construction activities associated with the proposed storm drain. Air pollutants will be emitted by construction equipment which will be emitted into the atmosphere from equipment exhaust. Secondary construction-related impacts to air quality will result from fugitive dust emitted from excavation and backfill. Air pollutants will also be emitted from construction worker commutes. Project-related impacts are anticipated to be short-term in duration, and will occur only during construction of the project. While approximately 90% of construction equipment utilizes sulfur burning diesel fuels, SCAQMD requires construction equipment to utilize at least low-sulfur burning fuels. Non-sulfur burning construction vehicles may be cost prohibitive under the City's current budget for this project. Therefore the use of non-sulfur burning fuel use will be a recommendation and not a requirement.

No short-term or long-term impacts on climate or air quality management are anticipated. All such construction related air impacts are considered less than significant, given the recommended measures to mitigate temporary impacts and the short duration of construction.

The proposed storm drain project will create certain GHG's during construction of the facility primarily from construction equipment. The final project, after construction, will not create GHG's.

2.6 Noise Resources

2.6.1 Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless such measures are not feasible.

For highway transportation projects with FHWA (and the Department, as assigned) involvement, the federal-Aid Highway Act of 1970 and the associated implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA).

2.6.2 Noise Impact Avoidance, Minimization and/or Mitigation Measures

Ambient noise levels were not analyzed as part of this document because the final project, after construction, will not expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. However, the project will result in short term construction related noise and vibration because it includes tunnel drilling activity, temporary equipment staging, grading, etc. The project will not create the potential for adverse construction-related noise impacts because all construction will occur during normal working hours. No construction will occur at night or on Sundays. Contractors will be required to comply with City Noise Ordinances and Caltrans noise reduction requirements.

The noise impacts during construction could be mitigated to less than significant levels by limiting hours of construction, maintaining construction equipment in good working order, and prohibiting certain construction related activities such as rock crushing.

Tunneling activity may trigger canyon wall and landslide failure during construction. No impacts to downstream mobile home park residents are anticipated. Construction worker risks will be minimized by implementation of construction safety specifications.

2.7 Traffic and Circulation

The Transportation Systems section of the City's General Plan provides a component for the discussion of transportation infrastructure. The transportation infrastructure has been divided into 3 major elements:

- Vehicular Networks
- Public Transportation
- Path and Trail Networks

The City of Rancho Palos Verdes Traffic Safety Commission is responsible for implementation of the Transportation Systems goals and policies.

There are no developed streets or roads within San Ramon Canyon. The closest streets include PVDE to the west and W. 25th Street to the south. As noted in prior sections of this document, PVDE is in eminent danger of failure in the next 7 to 8 years. W. 25th Street is annually inundated by storm flows that are greater than the existing inlet structure can handle, and water, dirt, rock and debris is washed onto and across W. 25th Street.

2.7.1 Vehicular Networks

Palos Verdes Drive South is a 4-laned registered scenic highway and a major arterial for the City connecting the south-eastern portion of the City with San Pedro and Los Angeles further east. The City's General Plan indicated that Palos Verdes Drive South is approaching estimated peak

hour capacities. Traffic impacts due to construction will be mitigated with traffic control requirements upon the construction contractor, consistent with the City of Rancho Palos Verdes traffic safety program.

Palos Verdes Drive East is a 2-laned major arterial road. The PVDE switchbacks are a significant ingress and egress for residents, commuters and emergency personnel. Based on the geotechnical documentation, the canyon walls are eroding at an average rate of about 5 feet per year. The existing slope face would only need to erode back approximately 35 to 40 feet before the road way would be in a state of imminent failure.

2.7.2 Public Transportation

Public transportation stops along PVDS and PVDE will not be impacted by the proposed project because there are no transit stops in the vicinity of the proposed storm drain project. Nonetheless, any lane closures due to construction will require public transportation stops and facilities to remain accessible at all times.

2.7.3 Path and Trail Networks

Walkways, bikeways and equestrian trails make up the classification referred to as Path and Trail Networks. The importance of path and trail networks also relates to recreation and environmental amenities. Any lane closures due to construction will require walkways and bikeways along Palos Verdes Drive South to remain accessible at all times. There are no Class bikeways along either PVDE or W. 25th Street. Any lane closures due to construction will require walkways and bikeways to remain accessible at all times.

2.7.4 Traffic Impact Avoidance, Minimization and/or Mitigation Measures

During construction, short-term related traffic impacts may result. However, these impacts can be mitigated to less than significant levels through traffic control measures, construction timing and construction phasing to avoid peak hours.

The City will ensure that roads are open during construction to at least one lane of traffic in two directions, with the use of flaggers. Open trenches will be covered with steel plates during non-working hours.

2.8 Land Use

The project area is in an undeveloped condition, except for PVDE roadway to the west, and W. 25th Street roadways to the south. Overhead utility lines are located on the east side of the canyon, outside of the project area. Land use designations for this area of the City of Rancho Palos Verdes include the following:

- General Plan designation: Natural Environmental Hazard

- Zoning designation: Open Space Hazard (OH).

Land uses surrounding the canyon to the north, northeast and northwest are single family residences within the City of Rancho Palos Verdes. Land use to the south includes higher density residential in the City of Los Angeles, commonly referred to as the Palos Verdes Shores mobile home park south of W. 25th Street.

2.8.1 Land and Water Conservation Fund

Based on information from the City of Rancho Palos Verdes, Land and Water Conservation Fund Act funds have not been used in or near the project area. Therefore the project will not have the potential to affect properties acquired or improved with Land and Water Conservation Fund Act funds.

2.8.2 Environmental Justice Geographic Assessment / Relocation Impacts

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994. This Executive Order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines.

This section identifies minority and low income populations that exist within the project area and evaluates whether the environmental impacts (if any), or each alternative, would result in a disproportionately high and adverse impact on minority and low income populations. Based on review of the Environmental Justice area of the EPA EJView web site, the project is located within an area with per capita income from surrounding property owners averaging approximately \$37,000 to \$64,000 annually. Zero to 10% of the population in this area is below poverty, does not have a college education and all residents speak English. Only 20 to 20% of the population in this area are minorities.

No minority or low-income populations that would be adversely affected by the proposed project have been identified as determined above. Therefore, this project is not subject to the provisions of EO 12898.

2.8.3 Growth

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the National Environmental Policy Act (NEPA) of 1969, require evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas

beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations, 40 CFR 1508.8, refer to these consequences as secondary impacts. Secondary impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act (CEQA) also requires the analysis of a project's potential to induce growth. CEQA guidelines, Section 15126.2(d), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

The proposed project is meant to protect existing residences and will not promote growth in new areas.

2.8.4 Land Use Impact Conclusions

The project is consistent with land use plans and policies and will not create significant land use issues. The project will not create land use impact to surrounding residents or growth inducing impacts on the community.

2.9 Aesthetic/Visual Resources

2.9.1 Regulatory Setting

The National Environmental Policy Act of 1969 as amended (NEPA) establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 USC 4331[b][2]). To further emphasize this point, the Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities." (CA Public Resources Code Section 21001[b]).

2.9.2 Visual Resource Mitigation

As part of this environmental document, photo simulations have been prepared so the lead agent and approving body of the City of RPV can see beforehand, when the final project will look like (Photos 18 and 19 and appendices). There will be no new light or glare created by the inlet structure of buttress fill. The outlet structure will be camouflaged to the extent possible with neutral tone concrete and faux rock.



Photo 18: Photo simulation of outlet structure.



Photo 19: Simulation of post construction buttress fill and re-vegetation.

2.10 Hazardous Materials/Hazardous Waste

2.10.1 Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating

air and water quality, human health and land use. The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning. Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

2.10.2 Project Summary and Conclusions

The following local and State-maintained databases were reviewed: State NPL and CERCLIS, LUST, UST, SWIS, RCRA, ERNS, Oil and Gas Wells, HWIS. The ADL registry for the DoD (Department of Defense) was consulted for this project area and the results were negative. Since no structures are located within the project street area, Lead Based Paints and Asbestos Containing Materials will not be impacted.

One RCRA site noted is South Bay Industrial Services, Inc., which is located at 2701 San Ramon Drive, RPV, CA. This hazardous materials handler disposes used oil and is fully permitted. No violations were noted. No impacts from this REC are anticipated.

Sandra F. Jacobs, REA 04694, with *SFC Consultants* is a qualified Registered Environmental Assessor with over 21 years of experience in hazardous materials and environmental compliance. Based on the site visit conducted in June 2010 and again on Aug. 25, 2011, it is my opinion that the Recognized Environmental Concerns (REC's) noted in the database and field verified, does not impact the project.

3.0 Project Environmental Consequences/Impacts and Mitigation

The Lead Agency (City of Rancho Palos Verdes) must adopt a mitigation monitoring or reporting program pursuant to Section 21081.6 of the Public Resources Code, California Environmental Quality Statutes, upon approval of a mitigated Negative Declaration. The purpose of the program is to ensure compliance with the required mitigation measures or project revisions during project implementation. Section 21081.6 also requires that mitigation measures be adopted as conditions of approval. Environmental issues that require mitigation to bring impacts to less than significant levels have been included in this section.

<u>Initial Study Designation</u>	<u>Mitigation Description</u>	<u>Implementation and Timing</u>
1 a, b, c	Aesthetics. The vegetation within the storm drain right-of-way (ROW) impacted due to construction will be replaced. Re-vegetation may also take the form of a passive park and trailhead. The outlet structure at the beach will be designed and constructed to “hide” the structure to the greatest extent possible	City of Rancho Palos Verdes will inspect the re-vegetation within 90-days after construction to ensure proper coverage. Design and construction options will be presented to the public works dept. for approval. The access roads will be paved with an earth tone color to blend with the natural surroundings.
3 a, b	Air Quality. Short-term construction related air quality impacts may be associated with truck emissions. While idling of some of the construction trucks may be necessary, potential impacts will be mitigated by utilizing the City of Rancho Palos Verdes standard Best Management Practices for construction. These measures include but are not limited to: maintaining construction equipment in good working condition, avoiding construction equipment idling in residential areas and utilizing low-sulfur burning fuels. Impacts are therefore less than significant with mitigation incorporated. Particulate matter emissions (PM10) will be controlled by the contractor with watering trucks.	City of Rancho Palos Verdes Public Works Department to verify that construction contractors utilize standard Best Management Practices for avoiding short-term related air quality impacts, by incorporation of conditions into project specifications. BMP’s are currently listed on the design drawings and are incorporated by reference.

4 a, b, c, e, f

Biological Resources.

Implementation of the City's NCCP through:
Landscape Establishment Conformance Mitigation Plan would include the following:

- o All related coordination and specification preparation required to enforce this establishment / mitigation plan as conditioned by the MND/FONSI and outside regulatory agencies.
- o The plan will include a description of the enhancement and restoration activities, timelines, plant palettes, maintenance and monitoring for at least 0.21 acres of jurisdictional impacts. Total re-vegetated area will likely be greater.

The monitoring would include:

- o Detailing physical work to be performed by others to prevent the re-invasion of non-native plants.
- o Prepare annual report after the initial mitigation implemented, photo documentation from designated "photo stations."
- o Documentation of re-vegetation survival percentages/sizes/species.
- o Direct/document the number and species of replacement plants (shrubs & trees).
- o Documentation of the methods used to assess all parameters.
- o Survival goals include: minimum of 80% on year one and 100% thereafter and/or 75% coverage with native woody species after 3-years and 90% after 5-years. Non-native species shall comprise less than 5% of the cover after 5-years. Monitoring and replacement plants will be required for the 5-year period mentioned, with the option of stopping the plan 2-years prior IF all success criteria is met.

We recommend the following be included:

- ✓ A qualified biologist/plant restoration specialist to retrieve and replant Southern Coastal Bluff Scrub, Island Green Dudleya and Aphanisma species that may be impacted, prior to construction on the bluff.
- ✓ All spills, leaks or other losses of oils and other hazardous or toxic materials will be immediately cleaned up. Under no circumstances is any hazardous or toxic material to be allowed in or near the maintained drainage channel.
- ✓ Preconstruction survey and species relocation if necessary for the Black Abalone.

The City of Rancho Palos Verdes shall ensure that the USACOE 404 consultation, CDFG 1602 Agreement and RWQCB 401 concurrence is applied for at least 90 days prior to construction.

City of Rancho Palos Verdes will inspect the re-vegetation within 90-days after construction to ensure proper coverage.

5	Cultural Resources. Native American monitoring during excavation will be recommended. Should unanticipated cultural resource remains be encountered during land modification activities, work must cease and be relocated, and the lead agency contacted immediately to determine appropriate measures to mitigate adverse impacts to the discovered resources. Cultural resource remains may include artifacts, shell, bone, features, altered soils, foundations, trash pits and privies, etc. If human remains are encountered during excavations associated with this project, all work must halt, and the County Coroner must be notified (Section 7050.5 of the California Health and Safety Code). The coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, the coroner will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the Public Resources Code. The MLD should make his/her recommendations within 48 hours of their notification by the NAHC. This recommendation may include A) the nondestructive removal and analysis of human remains and items associated with Native American human remains; (B) preservation of Native American human remains and associated items in place; (C) relinquishment of Native American human remains and associated items to the descendants for treatment; or (D) other culturally appropriate treatment.	The City of Rancho Palos Verdes Public Works Dept. will require the contractor to provide Native American monitoring during excavation of the inlet structure.
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9 a, k	Hydrology and Water Quality. NPDES Permit for General Construction Activities will be required for lineal trenching, excavation and dewatering in accordance with the Regional Water Quality Control Board. The NPDES permit will dictate the required water quality allowed to be discharged during construction and specify BMP's used during construction. The tunnel outlet point to the beach will be required to be fully lined and bordered with sandbags so that no debris or construction water of any kind is allowed to the ocean. The tunneling operations will be required to use conveyors or other means other than hydraulic slurry pumping to convey the spoils so as to prevent a potential spill onto to the beach. All spills, leaks or other losses of oils and other hazardous or toxic materials will be immediately cleaned up. Under no circumstances is any hazardous or toxic material to be allowed in or near the maintained drainage channel.	The City will also be required to prepare a Water Quality Management Plan as part of its mitigation of water quality impacts from construction and trenching activity.
12 a, d	Noise. The proposed project is anticipated to have a short-term noise and vibration impacts during construction and less than significant impacts after construction. The impacts during construction could be mitigated to less than significant by limiting hours of construction and maintaining construction equipment in good working order.	The City of Rancho Palos Verdes Public Works Department shall verify contractor compliance with standard noise reduction requirements during construction.
16 a, c, d	Traffic and Circulation. During construction, short-term related traffic impacts may result. However, these impacts can be mitigated to less than significant levels through traffic control measures, construction timing and construction phasing to avoid peak hours. The City will ensure that roads are open during construction to at least one lane of traffic in two directions, with the use of flaggers. Open trenches will be covered with steel plates during non-working hours.	During construction, the City of Rancho Palos Verdes Public Works Department shall provide alternative parking areas and verify that residents within the trailer part on W. 25th Street can enter and exit the street at all times. The City will also facilitate good communication with residents through public notices of impacted parking areas and construction times.

NEPA Checklist
CEQA Initial Study Checklist

Project Title: San Ramon Canyon Storm Drain Tunnel Improvements.

Lead Agency Name and Address:

City of Rancho Palos Verdes
Public Works Dept.
30940 Hawthorne Blvd.
Rancho Palos Verdes, CA 90275

Contact Persons and Phone Number: Mr. Alan Braatvedt, P.E. (310) 544-5253
Mr. Eduardo Schonborn, AICP (310) 544-5228

Project Location: San Ramon Canyon, north and south of W. 25th Street/Palos Verdes Drive East, in the City of Rancho Palos Verdes, Los Angeles County, California.

Description of the Undertaking/Project Description: The project undertaking would include a new mid-canyon storm drain inlet structure and tunnel alignment north of W. 25th Street that would gravity flow through the tunnel to a cut and covered section of buried pipe located south of W. 25th Street, and transition into a second tunnel to a new outlet structure at the base of the bluff. Total storm drain alignment is approximately 4,200 lineal feet of 54-inch diameter pipe from inlet to outlet. Total tributary area draining into the new storm drain would be 123.7 acres. The existing 48" storm drain below W. 25th Street that is within the City of Los Angeles would remain in place and serve as backup as necessary. No improvements or cleaning are proposed to the existing storm drain system, which is located in the City of Los Angeles.

General Plan Designation: Natural Environment/Hazard

Zoning: OH Open Space Hazard

Existing Environment, Surrounding Land Uses and Setting: The open space areas of San Ramon Canyon are comprised of non-native grasslands, coastal sage scrub and bare slopes in the steep canyon area. Photos of existing settings are provided below. Surrounding land uses are generally residential and natural open space. Detailed existing settings will be provided in the Environmental Assessment and Mitigated Negative Declaration.

List of Participants and Other federal and state agencies consulted as part of the document/Cross Cutters (e.g. permits, financing approval, or participation agreement):

- EPA Region 9 (Pacific Southwest)
- Federal Highway Administration
- U.S. Fish and Wildlife Services
- U.S. Army Corp of Engineers
- California Department of Fish and Game
- California Department of Transportation
- California Coastal Commission
- Los Angeles Regional Water Quality Control Board
- City of Rancho Palos Verdes

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

- ☐ Aesthetics
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Geology /Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards & Hazardous Materials
- ☐ Hydrology / Water Quality
- ☐ Land Use / Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities / Service Systems
- ☐ Mandatory Findings of Significance

No potentially significant impacts were found as a result of this mitigated negative declaration or environmental assessment.

DETERMINATION: On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and an ENVIRONMENTAL ASSESSMENT - NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project and revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT/FINDING OF NO SIGNIFICANT IMPACT - MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT STATEMENT - REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT STATEMENT - REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIS - EIR or EA/FONSI - NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIS - EIR or EA/FONSI - NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Eduardo Schonborn

Signature

November 16, 2011

Date

Mr. Eduardo Schonborn, AICP

Name

NEPA Environmental Compliance Checklist

YES	NO	
	X	1. Is the facility located in an officially designated wilderness area?
		According to a review of the California Natural Resources Agency Land Resources Map and the Department of Agriculture's list of wilderness areas (http://www.wilderness.net/index.cfm?fuse=NWPS), the Project Site is not located in an officially designated wilderness area. In addition, according to SFC's review of available on-line resources, the Project Site is not located in a National Park (www.nps.gov/gis), National Park Service Interactive Map Center, a designated Scenic and Wild River (http://www.rivers.gov/wildriverslist.html), a land area managed by the Bureau of Land Management www.blm.gov/nhp/facts/index.htm), or within 1 mile of a National Scenic Trail as identified by the National Park Service (http://www.nps.gov/ncrc/programs/nts/nts_trails.html). The Deane Dana Friendship Community Regional Park is located east of the project but will not be impacted.
	X	2. Is the facility located in an officially designated wildlife preserve?
		According to a review of the California Natural Resources Agency Land Resources Map, the Project Site is not located in an officially designated wildlife preserve. In addition, according to SFC's review of available on-line resources, the Project Site is not located in a US Fish and Wildlife Service National Wildlife Refuge (http://www.fws.gov/refuges/refugeLocatorMaps/index.html).
	X	3. Will/may the facility (i) affect listed, threatened or endangered species or designated critical habitats; or (ii.) likely jeopardize the continued existence of any proposed endangered or threatened species or likely result in the destruction or modification of proposed critical habitats?
		Approximately 0.34 acres of Coastal Sage Scrub (CSS) may be permanently impacted due to construction of this project. The resulting impacts from construction of the outlet structure at the bluff would include approximately 0.02 acres of Southern coastal bluff scrub. The City NCCP identifies the lower San Ramon Canyon repair as an approved project with an allowable impact area maximum of 2.0 acres of CSS habitat, and 6.0 acres of non-native grassland habitat. Based on the biological report prepared for this project, the 0.34 acres of CSS habitat, 0.02 acres of coastal bluff scrub, and 1.36 acres of grassland habitat will not exceed the allowable maximum for the NCCP approved project. Application of the NCCP allowable acreages will become the necessary mitigation for this impact. Site specific California gnatcatcher protocol surveys were conducted during the 2011 breeding season as part of the NEPA/CEQA document. No gnatcatchers were found. No further mitigation is required. Based on the biological report and the wetlands delineation, the jurisdictional drainage of San Ramon Canyon does not support any wetlands or riparian habitat. However, the project will impact approximately 0.07 acres of jurisdictional drainage. Impacts from the canyon and jurisdictional fill will be mitigated by post-construction re-vegetation of the new streambed at a 3:1 ratio or a total of 0.21 acres. The Landscape Establishment Conformance Mitigation Plan details are included in Section 3.0 of the MND. Impacts are considered less than significant with mitigation incorporated.
	X	4. Will/may the facility affect districts, sites, buildings, structures or objects significant in American history, architecture, archaeology, engineering or culture, that are listed, or eligible for listing in the National Register of Historic Places?
		The project will not disturb any human remains, including those interred outside of formal cemeteries. Because of the flood "flushing" effect, the canyon is basically sterile of cultural resources. The cultural

		resource survey conducted over the project area and construction access roads concluded that no cultural resources are located in the project area and additional mitigation is not required. Further, the presence of cultural resources is extremely low because it is unlikely that burial locations would have been sited in a streambed. Thus, impacts are considered less than significant. However, it is important to note that Native American monitoring was recommended by at least 2 tribes for the Los Angeles coastal area. As such, Native American monitoring will be recommended as part of the MND mitigation.
	X	5. Will/may the facility affect Indian religious sites?
		Native American monitoring was recommended by at least 2 tribes for the Los Angeles coastal area. As such, Native American monitoring will be recommended as part of the EA MND.
	X	6. Is the facility located in a floodplain?
		The proposed project includes construction of a new storm drain facility, and will not 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, which would impede or redirect flood flows. Impacts are considered less than significant.
X		7. Will/may the construction of the facility involve a significant change in surface features (e.g. wetland fill, deforestation, or water diversion)?
		While the storm drain project will alter the existing drainage pattern of the site, it will not alter the course of a stream or river in a manner which would result in substantial erosion or siltation on- or off-site. Areas of severe erosion are generally in the area of the Tarapaca landslide and further downstream. The episodic and active downslope movement of the Tarapaca landslide is forcing the flowline of the canyon to shift westerly, causing increased erosion of the western walls of the canyon. The proposed project, which includes buttress filling of the canyon and a new storm drain system will reduce the rate of erosion within the canyon, reduce the flow of water and debris down through the canyon, and reduce the movement of the Tarapaca landslide. The project will alleviate the flooding and siltation problem which has consistently blocked W.25 th Street with water, mud and debris after past storm events. As such, impacts are considered less than significant with mitigation.

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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1. AESTHETICS. Would the project:					
a) Have a substantial adverse effect on a scenic vista?	Photo simulations		X		
The proposed project will not have a substantial adverse effect on a scenic vista since the new buttress fill will be located at the bottom of the canyon floor, will not be readily visible by the public due to the topography and development pattern of the area, and will be planted with new native vegetation. The proposed mitigation measures include camouflaging the new storm drain outlet structure at the beach. Further, the inlet structure will be camouflaged to the greatest extent possible while maintaining the integrity of the new design. As a result, aesthetic impacts are considered less than significant with mitigation.					
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings or historic buildings within a scenic highway?	Photo simulations		X		
The new buttress fill will be located at the bottom of the canyon floor, will not be visible to the public, and will be planted with new native vegetation. The proposed project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings or historic buildings within a scenic highway. The proposed mitigation includes camouflaging the new storm drain outlet structure at the beach. Further, the inlet structure will be camouflaged to the greatest extent possible while maintaining the integrity of the new design. As such, aesthetic impacts are considered less than significant with mitigation.					
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Photo simulations		X		
The proposed project will not substantially degrade the existing visual character or quality of the site and its surroundings. The new buttress fill will not be readily visible by the public, and will be planted with new native vegetation. The proposed mitigation measures include camouflaging the new storm drain outlet structure at the beach. Further, the inlet structure will be camouflaged to the greatest extent possible while maintaining the integrity of the new design. As such, aesthetic impacts are considered less than significant with mitigation.					
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?					X
The proposed project includes a new underground storm drain facility, which will not create a new source of light or glare, which would adversely affect day or nighttime views of the area. No light or glare impacts will occur.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2. AGRICULTURE AND FORESTRY RESOURCES. Would the project:					
a) Convert Prime, Unique or Statewide Importance Farmland to non-agricultural use?	Calif. Ag. Land Evaluation				X
Based on review of the City's General Plan and California Agricultural Land Evaluation criteria, the project area is not located in, nor is adjacent to, designated agricultural land. The proposed project will not convert prime, unique or statewide importance farmland to non-agricultural use. Thus, no impacts to prime farmland will occur.					
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	Calif. Ag. Land Evaluation				X
Based on review of the City's General Plan and California Agricultural Land Evaluation criteria, the project area is not located in, nor is adjacent to, designated agricultural land or a Williamson Act contract. Thus, no impacts are anticipated.					
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51101(g))?	Calif. Ag. Land Evaluation				X
Based on review of the City's General Plan and California Agricultural Land Evaluation criteria, the project area is not located in, nor is adjacent to, designated timberland or zone for Timberland Production. The project will not conflict with existing zoning, nor cause the rezoning of forest land, timberland or Timberland Production. Thus, no impacts will occur to agriculture and forestry resources.					
d) Result in the loss of forest land or conversion of forest land to non-forest use?	Calif. Ag. Land Evaluation				X
Based on review of the City's General Plan and California Agricultural Land Evaluation criteria, the project area is not located in, nor is adjacent to, designated forest land. The proposed project will not result in the loss of forest land or conversion of forest land to non-forest use. Thus, no impacts are anticipated to agriculture and forestry resources.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Calif. Ag. Land Evaluation				X
The proposed project is an underground storm drain and will not result in changes to the existing environment which could result in conversion of farmland to non-agricultural use, or conversion of forest land to non-forest use. Thus, no impacts are anticipated.					
3. AIR QUALITY (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:					
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	Air Resources Control Board		X		
The proposed project includes a new storm drain facility, which will not violate any air quality standard or contribute to an existing or projected air quality violation. Short term construction related dust will be mitigated by using construction dust reduction measures. These measures include but are not limited to: maintaining construction equipment in good working condition, avoiding construction equipment idling and utilizing low-sulfur burning fuels.					
b) Expose sensitive receptors to substantial pollutant concentrations?	Air Resources Control Board		X		
The proposed project, after construction, is not anticipated to expose sensitive receptors to substantial pollutant concentrations. Short term construction related dust will be mitigated by using construction dust reduction measures. These measures include but are not limited to: maintaining construction equipment in good working condition, avoiding construction equipment idling and utilizing low-sulfur burning fuels.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	Air Resources Control Board				X
While the proposed project is within a non-attainment area for ozone, carbon monoxide, nitrogen dioxide, total suspended particulate, PM 2.5 and lead, the proposed storm drain project is not anticipated to result in a cumulatively considerable net increase under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors), Because short term construction related dust will be mitigated by using construction dust reduction measures. These measures include but are not limited to: maintaining construction equipment in good working condition, avoiding construction equipment idling and utilizing low-sulfur burning fuels.					
d) Create objectionable odors affecting a substantial number of people?	Air Resources Control Board			X	
The proposed storm drain project, after construction, is not anticipated to create objectionable odors affecting a substantial number of people. Short term construction related odors may result from construction vehicles, by the construction site is not immediately adjacent to a sensitive receptor. As such, less than significant impacts are anticipated.					
e) Conflict with or obstruct the implementation of any applicable air quality plan.	Air Resources Control Board				X
The proposed storm drain project is not anticipated to conflict with or obstruct the implementation of any applicable air quality plans. The project will result in a gravity-flow storm drain system, and will not result in a use that can impact air quality. As such, there will be no impacts associated with the storm drain system.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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4. BIOLOGICAL RESOURCES. Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Biological Assessment, Wetlands Delineation, gnatcatcher survey, City NCCP		X		
Approximately 0.34 acres of Coastal Sage Scrub (CSS) may be permanently impacted due to construction of this project. The resulting impacts from construction of the outlet structure at the bluff would include approximately 0.02 acres of Southern coastal bluff scrub. The City NCCP identifies the lower San Ramon Canyon repair as an approved project with an allowable impact area maximum of 2.0 acres of CSS habitat, and 6.0 acres of non-native grassland habitat. Based on the biological report prepared for this project, the 0.34 acres of CSS habitat, 0.02 acres of coastal bluff scrub, and 1.36 acres of grassland habitat will not exceed the allowable maximum for the NCCP approved project. Application of the NCCP allowable acreages will become the necessary mitigation for this impact. Site specific California gnatcatcher protocol surveys were conducted during the 2011 breeding season as part of the NEPA/CEQA document. No gnatcatchers were found; therefore no further gnatcatcher surveys are required.					
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Biological Assessment, Wetlands Delineation, gnatcatcher survey, City NCCP		X		
Based on the biological report and the wetlands delineation, the jurisdictional drainage of San Ramon Canyon does not support any wetlands or riparian habitat. However, the project will impact approximately 0.07 acres of jurisdictional drainage. Impacts from the canyon and jurisdictional fill will be mitigated by post-construction re-vegetation of the new streambed at a 3:1 ratio or a total of 0.21 acres through an ACOE 404 permit. The Landscape Establishment Conformance Mitigation Plan details are included in Section 3.0 of the MND. Impacts are considered less than significant with mitigation incorporated.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	Biological Assessment, Wetlands Delineation, gnatcatcher survey, City NCCP		X		
Based on the biological report and the wetlands delineation, the jurisdictional drainage of San Ramon Canyon does not support any wetlands or riparian habitat. However, the project will impact approximately 0.07 acres of jurisdictional drainage. As a result, the project will be required to obtain the necessary permits for the jurisdictional drainage as outlined in the biological report. Further, impacts from the canyon and jurisdictional fill will be mitigated by post-construction with re-vegetation of the new streambed at a 3:1 ratio or a total of 0.21 acres. The Landscape Establishment Conformance Mitigation Plan details are included in Section 3.0 of the MND. Based on the biological report, the Citywide NCCP and mitigation plan will mitigate impacts to less than significant levels.					
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?	Biological Assessment, Wetlands Delineation, gnatcatcher survey, City NCCP			X	
Based on the biological report, the canyon is part of a fragmented natural area and does not provide significant habitat value due to the velocities associated with each flood event. Because of this flood “flushing” effect, the canyon is basically environmentally “sterile”. The biological report did not find suitable raptor nesting habitat in the project area.					
The Phase 2 Restoration Plan of the Montrose Settlements Restoration Program (MSRP) identifies three potential restoration sites in the ocean near the vicinity of the project site. Part of the goal of the restoration plan is to build artificial reef modules for restoration of natural resources, including marine birds, fish and the habitats upon which they depend. The closest restoration site identified would be located approximately 1 mile off the coast where the storm drain outlet is proposed. Although the storm drain system could carry sediment during storm events that would directly outlet to the ocean, it is not anticipated that sediment could be carried out 1 mile to the potential restoration site.					
Therefore, the proposed project will not interfere with the movement of any native resident, migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. As such, impacts are considered less than significant.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Biological Assessment, Wetlands Delineation, gnatcatcher survey, City NCCP		X		
The proposed project is consistent with local policies and ordinances protecting biological resources. The City's NCCP identifies the lower San Ramon Canyon repair as an approved project with an allowable impact area maximum of 2.0 acres of CSS habitat, and 6.0 acres of non-native grassland habitat. Based on the biological report prepared for this project there will be 0.34 acres of CSS habitat loss and 1.36 acres of grassland habitat loss. These losses are significantly less than the allowable maximums for the NCCP approved project. As such, since the NCCP has already taken this project into account, the impacts are considered less than significant with implementation of the NCCP criteria.					
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other local, regional or state habitat conservation plan?	Biological Assessment, Wetlands Delineation, gnatcatcher survey, City NCCP		X		
The City NCCP identifies the lower San Ramon Canyon repair as an approved project with an allowable impact area maximum of 2.0 acres of CSS habitat, and 6.0 acres of non-native grassland habitat. Based on the biological report prepared for this project, the 0.34 acres of CSS habitat and 1.36 acres of grassland habitat, does not exceed the allowable maximum from the NCCP approved project. These losses are significantly less than the allowable maximums for the NCCP approved project. As such, since the NCCP has already taken this project into account, the impacts are considered less than significant with implementation of the NCCP criteria.					
5. CULTURAL RESOURCES. Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines?	Cultural Resource Survey			X	
The proposed project will not cause substantial adverse change in any significance of a historical resource defined in Section 15064.5 of CEQA. Because of the flood "flushing" effect, the canyon is basically sterile of cultural resources. The cultural resource survey conducted over the project area and construction access roads concluded that no cultural resources are located in the project area and additional mitigation is not required. Impacts are considered less than significant.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines?	Cultural Resource Survey			X	
The proposed project will not cause substantial adverse change in any significance of an archaeological resource defined in Section 15064.5 of CEQA. Because of the flood “flushing” effect, the canyon is basically sterile of cultural resources. The cultural resource survey conducted over the project area and construction access roads concluded that no cultural resources are located in the project area and additional mitigation is not required. Impacts are considered less than significant.					
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Cultural Resource Survey			X	
The tunneling operation will not destroy any unique paleontological resources or unique geologic features. The cultural resource assessment did not identify or find paleontological resources in the project area. Impacts are considered less than significant.					
d) Disturb any human remains, including those interred outside of formal cemeteries?	Cultural Resource Survey			X	
The project will not disturb any human remains, including those interred outside of formal cemeteries. Because of the flood “flushing” effect, the canyon is basically sterile of cultural resources. The cultural resource survey conducted over the project area and construction access roads concluded that no cultural resources are located in the project area and additional mitigation is not required. Further, the presence of cultural resources is extremely low because it is unlikely that burial locations would have been sited in a streambed. Thus, impacts are considered less than significant. However, it is important to note that Native American monitoring was recommended by at least 2 tribes for the Los Angeles coastal area. As such, Native American monitoring will be recommended as part of the MND mitigation.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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6. GEOLOGY-SOILS-SEISMICITY. Would the project:					
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?	Geotechnical Report			X	
The site is not located within an Alquist-Priolo Earthquake Fault Zone. In addition, there are no known active faults that pass directly through the site. The nearest known active fault is the Palos Verdes fault, located approx. 3.3 miles from the site. The Newport-Inglewood fault is located approx. 9.7 miles from the site. Given the proximity of the site to these and numerous other active and potentially active faults, the site would be subject to earthquake ground motions. Therefore, the project mitigation will require consistency with Public Resources Code Section 2693(c). Environmental impacts will be less than significant.					
ii) Strong seismic ground shaking?	Geotechnical Report			X	
Strong seismic ground shaking may be anticipated due to the Palos Verdes and Newport-Inglewood faults, as well as other numerous active and potentially active faults. Therefore, the project will require consistency with Public Resources Code Section 2693(c). Impacts are considered less than significant.					
iii) Seismic-related ground failure, including liquefaction?	Geotechnical Report			X	
Given the depth to groundwater outlined in the geotechnical report, and the well-consolidated nature of the landslide and bedrock materials on site, the potential for liquefaction and lateral spreading of these materials is low. However, localized areas where the canyon is underlain by recent alluvium or colluvium may be subject to these seismic hazards should these surficial soils be saturated at the time of the seismic event. Therefore, the project will require consistency with Public Resources Code Section 2693(c). Environmental impacts are considered less than significant.					
iv) Landslides?	Geotechnical Report			X	
Given the site is predominately underlain by a large, dormant landslide, and the existing walls and slopes of San Ramon Canyon are generally over-steepened due to erosion, the potential for further landsliding due to a large seismic event is high. Buttress filling of the canyon and the proposed storm drain will reduce the rate of erosion within the canyon, reduce the flow of water and debris down canyon, and reduce the movement of the Tarapaca landslide.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or loss of topsoil?	Geotechnical Report			X	
Erosion within San Ramon Canyon ranges from moderate to severe. Areas of severe erosion are generally in the area of the Tarapaca landslide and downstream. The episodic and active downslope movement of the Tarapaca landslide is forcing the flowline of the canyon to shift westerly, causing increased erosion of the western walls of the canyon. These areas are directly downslope of the switchbacks of PVDE, in particular, the lower switchback. Based on the geotechnical report, it appears that the canyon walls are eroding at an average rate of about 5 feet per year. Continued annual erosion of these areas may cause stability issues with the PVDE roadway. Moderate to severe erosion of the canyon walls and floor due to heavy flow of surface water and flash flooding during rains has caused deep cutting of the canyon, in some areas generating vertical cuts up to 30 feet in height. Instability of these cuts is triggering surficial failures and toppling of the vertical walls. Buttress filling of the canyon in addition to the proposed storm drain that will divert water flow away from the canyon will reduce the rate of erosion within the canyon, reduce the flow of water and debris down canyon, and reduce the movement of the Tarapaca landslide. The buttress filling is part of the proposed storm drain project and is not considered mitigation. As such, the impacts are considered less than significant.					
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?	Geotechnical Report			X	
As discussed in b) above, San Ramon Canyon is subject to severe erosion due to flash flooding episodes and continued westerly movement of the Tarapaca Landslide. Buttress filling of the canyon and the proposed storm drain will reduce the rate of erosion within the canyon, reduce the flow of water and debris down canyon, and reduce the movement of the Tarapaca landslide. The storm drain and buttress fill is part of the overall project, and not considered mitigation. As such, landslide impacts are considered less than significant.					
d) Be located on expansive soil, as defined by the Uniform Building Code, thus creating substantial risks to life or property?	Geotechnical Report				X
Much of the Palos Verdes Peninsula is underlain by soils characterized as expansive; however, based on the geotechnical report, the proposed project is anticipated to have no such impact.					
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	Geotechnical Report				X
The proposed project includes construction of a new storm drain, and does not involve a use that includes or requires said types of disposal systems. Based on the geotechnical report, the proposed project is anticipated to have no such impact on the use of septic tanks or wastewater disposal.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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7. GREENHOUSE GAS EMISSIONS. Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Calif. State Office of Planning and Research GHG issues			X	
The proposed storm drain project will create certain GHG's during construction of the facility primarily from construction equipment. After construction, the project will not create GHG's since the proposed project includes construction of a new gravity-flow storm drain facility. Thus, it is small and short term with regards to the scale of projects that create significant GHG's. As a result, the proposed storm drain project is not anticipated to generate greenhouse gas emissions either directly or indirectly. Therefore, the impacts are considered less than significant.					
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Calif. State Office of Planning and Research GHG issues			X	
The proposed storm drain project is short term and small with regards to the scale of projects that create significant GHG's. Currently, there are no adopted plans, policies or regulations for the purpose of reducing GHG emissions. However, the South Coast Air Quality Management District (SCQAMD) has published a "Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold". The proposed storm drain project does not trigger any of the draft significance thresholds. Thus, the project will not conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. As such, the impacts are considered less than significant.					
8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	Hazardous Materials Database				X
The proposed project includes construction of a new storm drain, and would not generate any hazardous materials and no transport of hazardous materials is anticipated. As a result, the proposed project is not anticipated to create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	Hazardous Materials Database				X
The proposed project includes construction of a new storm drain, and would not generate any hazardous material. As a result, it is not anticipated to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release or hazardous material in to 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?	Hazardous Materials Database				X
The proposed project includes construction of a new storm drain facility, and would not generate or emit any hazardous materials. As a result, it is not anticipated to 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 create a significant hazard to the public or the environment?	Hazardous Materials Database				X
The project site is not listed as a hazardous material site pursuant to Government Code Section 65962.5. No impacts are anticipated as a result of the project.					
e) For a project within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport, would the project result in a safety hazard for people residing or working in the project area?					X
The proposed project is not located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport. Therefore, the project would not 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.					X

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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The proposed project is not located within the vicinity of a private airstrip. Thus the proposed project will not 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.

X

The proposed project is not anticipated to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. The project will alleviate the flooding problem which has blocked W.25th Street with water, mud and debris after past storm events.

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?

County of Los Angeles, Fire Department, Incorporated Fire Hazard Severity Zone Map, City Rancho Palos Verdes, Tile 3

X

The project site is designated a "High Fire Hazard" area by the California Department of Forestry and Fire Protection (CAL FIRE) and the County of Los Angeles Fire Department. Wildfires on the Palos Verdes Peninsula are associated with large tracts of open spaces, including those interspersed with developed areas like the project site. The proposed project includes a new storm drain system, and would not place homes, businesses, or residents within a fire hazard area and does not include a type of use that would increase the potential for wildland fire at the project site. As such, the impacts are considered less than significant.

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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9. HYDROLOGY AND WATER QUALITY. Would the project:					
a) Violate any water quality standards or waste discharge requirements?	Hydrology and Hydraulics Study		X		
Under the Los Angeles County existing MS4 Permit, the City of Rancho Palos Verdes will require compliance with the NPDES for excavation, trenching, and dewatering adjacent to the ocean. A Storm Water Pollution Prevention Plan (SWPPP) may be prepared, as warranted, to address construction storm water runoff. The SWPPP may be incorporated into the City's Water Quality Management Plan. All construction activity will be required to comply with construction site runoff control minimum control measures, as outlined by the LARWQCB. The proposed storm drain system will result in less soil erosion in the canyon, which will reduce the amount of sediment discharged to the ocean. As such, the project would improve the quality of water discharged into the ocean. All spills, leaks or other losses of oils and other hazardous or toxic materials will be immediately cleaned up. Under no circumstances is any hazardous or toxic material to be allowed in or near the maintained drainage channel. Impacts are considered less than significant with this mitigation incorporated.					
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?	Hydrology and Hydraulics Study				X
Based on the geotechnical report, in general, groundwater was not observed during the investigation. One geotechnical boring encountered seepage or a perched zone of groundwater at 103-feet of depth. The storm drain and buttressing project will not substantially deplete groundwater supplies. As such, the proposed storm drain project is anticipated to have no such impact.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	Hydrology and Hydraulics Study			X	
While the storm drain project will alter the existing drainage pattern of the site, it will not alter the course of a stream or river in a manner which would result in substantial erosion or siltation on- or off-site. Areas of severe erosion are generally in the area of the Tarapaca landslide and further downstream. The episodic and active downslope movement of the Tarapaca landslide is forcing the flow line of the canyon to shift westerly, causing increased erosion of the western walls of the canyon. The proposed project, which includes buttress filling of the canyon and a new storm drain system will reduce the rate of erosion within the canyon, reduce the flow of water and debris down through the canyon, and reduce the movement of the Tarapaca landslide. The project will alleviate the flooding and siltation problem which has consistently blocked W.25 th Street with water, mud and debris after past storm events. As such, impacts are considered less than significant.					
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?	Hydrology and Hydraulics Study			X	
While the project will alter the existing drainage pattern of the site, it will not alter the course of a stream or river in a manner which would result in substantial flooding on- or off-site. Construction of the storm drain project is intended to help alleviate flooding and erosion of San Ramon Canyon, and alleviate the flooding and siltation problem that has consistently blocked W.25 th Street with water, mud and debris after past storm events. As such, impacts are considered less than significant.					
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Hydrology and Hydraulics Study			X	
The existing storm drain system currently does not meet the flow capacity needs during a storm event, which results in flooding and erosion of San Ramon Canyon and W. 25 th Street. Therefore, the new storm drain will greatly improve the storm flow capacity, and will minimize flooding and road closures. Thus, impacts are considered less than significant.					
f) Otherwise substantially degrade water quality.	Hydrology and Hydraulics Study			X	

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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The San Ramon Canyon storm drain project will not otherwise substantially degrade nor alter water quality. The storm drain is intended to serve a necessary drainage purpose to prevent potential degradation of topsoil, property damage, and potentially avoid a hazard to public safety. It is anticipated that the quality of water entering the new storm drain could be slightly improved since the project will reduce the amount of soil erosion in the canyon, which will reduce the amount of sedimentary discharge into the ocean. Construction Best Management Practices will prevent construction related erosion. Thus, impacts are considered less than significant.					
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?	Hydrology and Hydraulics Study			X	
The proposed project includes construction of a new storm drain facility, and will not 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 which would impede or redirect flood flows. Impacts are considered less than significant.					
h) Place within a 100-year flood hazard area, structures which would impede or redirect flood flows?	Hydrology and Hydraulics Study			X	
The project includes construction of a new storm drain facility, and will not place within a 100-year flood hazard area, structures which would impede or redirect flood flows. The new storm drain pipe will help to direct the storm flows in a controlled manner. Therefore, impacts are considered less than significant.					
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?	Hydrology and Hydraulics Study			X	
The project will not 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. Construction of the storm drain project does not include a levee or dam, nor is it in the vicinity of a levee or dam. The proposed storm drain project will alleviate the flooding of San Ramon Canyon and alleviate the flooding and siltation problem that consistently has blocked W.25th Street with water, mud and debris after past storm events. As a result, the project will benefit the area. Therefore, less than significant impacts are anticipated.					
j) Expose people or property to inundation by seiche, tsunami, or mudflow?	Hydrology and Hydraulics Study			X	

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Based on review of the Torrance/San Pedro Quadrangle to the Tsunami Inundation Map for Emergency Planning prepared by the California Geological Survey (CGS, 2009) (contained in the geotechnical report), the area at the toe of the bluff within the project site may be susceptible to Tsunami inundation. No mitigation is proposed for this potential impact. Further, the proposed project will address the current mudflow problem that results after storm events. Therefore, impacts are considered less than significant.

k) Have construction impact on storm water runoff?	Hydrology and Hydraulics Study		X		
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BMP's during construction will be required as part of the NPDES permit for the City. The tunnel outlet at the beach during construction will be required to be fully lined and bordered with sandbags so that absolutely no debris or construction water of any kind is allowed to the ocean. There will be stiff penalties imposed upon the contractor for any accidental violation. The tunneling operations will be required to use conveyors or other means other than hydraulic slurry pumping to convey the spoils so as to prevent a potential spill onto the beach.

l) Have post construction activity impact on storm water runoff?	Hydrology and Hydraulics Study				X
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The proposed project will not have post construction activity impact on storm water runoff. The new storm drain will help alleviate flooding.

10. LAND USE AND PLANNING. Would the project:

a) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to a general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effects?	City Wide NCCP and General Plan			X	
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The proposed project is not anticipated to conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project including, but not limited to a general plan, specific plan, local coastal program or zoning ordinance. The City's NCCP identifies the lower San Ramon Canyon repair as an approved project with an allowable impact area maximum of 2.0 acres of CSS habitat, and 6.0 acres of non-native grassland habitat. Based on the biological report prepared for this project, the 0.34 acres of CSS habitat and 1.36 acres of grassland habitat, is well below the allowable maximum from the NCCP approved project. Therefore, the project is consistent with the City's NCCP, and the impacts are considered less than significant for land use impacts since the NCCP mitigation is applicable in the biological section of this document.

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	City Wide NCCP and General Plan			X	
The proposed project is not anticipated to conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project. The City's NCCP identifies the lower San Ramon Canyon repair as an approved project with an allowable impact area maximum of 2.0 acres of CSS habitat, and 6.0 acres of non-native grassland habitat. Based on the biological report prepared for this project, the 0.34 acres of CSS habitat and 1.36 acres of grassland habitat, does not exceed the allowable maximum from the NCCP approved project. Therefore, the project is consistent with the City's NCCP, and the impacts are considered less than significant for land use impacts since the NCCP mitigation is applicable in the biological section of this document.					
c) Be incompatible with existing land use in the vicinity?	City Wide NCCP and General Plan			X	
The proposed project is not anticipated to be incompatible with existing land use in the vicinity. The project includes a subterranean drainage and piping that will not be readily visible by the public; fill material at the canyon floor will be hydroseeded which will result in native foliage that will screen the area so that it is not apparent; and the outlet structure will contain natural elements to blend the structure into the landscape. As such, the impacts are considered less than significant.					
d) Conflict with any applicable habitat conservation plan or natural community conservation plan?	City Wide NCCP and General Plan			X	
The proposed project is not anticipated to conflict with any applicable habitat conservation plan or natural community conservation plan. The City NCCP identifies the lower San Ramon Canyon repair as an approved project with an allowable impact area maximum of 2.0 acres of CSS habitat, and 6.0 acres of non-native grassland habitat. Based on the biological report prepared for this project, the 0.34 acres of CSS habitat and 1.36 acres of grassland habitat, does not exceed the allowable maximum from the NCCP approved project. Therefore, the project is consistent with the City's NCCP, and the impacts are considered less than significant for land use impacts since the NCCP mitigation is applicable in the biological section of this document.					
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	City Wide NCCP and General Plan				X
The proposed project is occurring in a canyon and includes a subterranean storm drain facility. Thus, Due to the project's scope and location, the Project would not physically divide an established community and will not be conducted within a residential neighborhood. As such, the project will have no such impact.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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11. ENERGY AND MINERAL RESOURCES. Would the project:					
a) Conflict with adopted energy conservation plans.					X
The proposed project is a new gravity-flow storm drain facility that does not require the use of electricity or other form of energy to operate. As such, the project will not conflict with any energy conservation plans and will have no impact.					
b) Use non-renewable resources in a wasteful and inefficient manner.					X
The proposed project includes a new storm drain facility that will not use non-renewable resources. As such, the proposed project will have no such impact.					
c) 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?					X
The project site is not known to contain mineral resources of value to the region and/or state residences. As such, there will be no environmental impacts resulting from the proposed project with respect to mineral resource issues.					
d) 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?					X
No land use plan delineates the site as a locally important mineral resource recovery site. As such, the proposed project is anticipated to have no such impact.					
12. 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?	City General Plan		X		
After construction, the project will not expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.					
Short-term construction-related noise will be generated during construction. Sources of noise during construction include truck road-noise, backup alarming and motorized construction equipment. Construction duration of 4 to 6 months weeks will require noise mitigation. The noise impacts during construction can be mitigated to less than significant levels by limiting hours of construction, maintaining construction equipment in good working order, and prohibiting certain construction related activities such as rock crushing.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	City General Plan			X	
After construction, the project will not expose persons to or generate excessive ground-borne vibration or ground-borne noise levels. The proposed project may create short-term construction vibration. These impacts are considered to be less than significant to the adjacent residents. Tunneling activity may trigger canyon wall and landslide failure during construction. No impacts to downstream residents are anticipated. Construction worker risk will be minimized by implementation of construction safety specifications.					
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	City General Plan			X	
The project includes a new storm drain system, and does not include a use that will generate noise. The long-term noise levels which may occur during maintenance of the storm drain facility will not be excessive. Therefore, impacts are considered less than significant.					
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	City General Plan		X		
After construction, the project will not create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Short-term construction-related noise will be generated during construction. Sources of noise during construction include truck road-noise, backup alarming and motorized construction equipment. While the short-term noise levels will not be excessive, the construction duration of 4 to 6 weeks will require noise mitigation. The noise impacts during construction can be mitigated to less than significant levels by limiting hours of construction, maintaining construction equipment in good working order, and prohibiting certain construction related activities such as rock crushing.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has been adopted, within 2 miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?	City General Plan				X
The proposed project is not located within an airport land use plan or within 2 miles of a public airport. Thus, there is no impact resulting from the storm drain project.					
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?	City General Plan				X
The proposed project is not located within the vicinity of a private airstrip. Thus the proposed project will not result in a safety hazard for people residing or working in the project area, and will have no such impact.					
13. POPULATION AND HOUSING. Would the project:					
a) Cumulatively exceed official regional or local population projects?					X
The proposed project includes a new storm drain facility to address flooding, and is not a residential development project. Thus, the project is not anticipated to cumulatively exceed official regional or local population projects.					
b) Induce substantial growth in an area, either directly or indirectly (for example, through projects in an undeveloped area of major infrastructure)?					X
The proposed project includes a new storm drain facility to address flooding. The project will not induce substantial growth either directly or indirectly, and does not accommodate new development; rather, the project remedies an existing drainage problem. As such, there will be no impacts associated with the project.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?					X
The proposed project includes a new storm drain facility to address flooding and does not require displacement of any residences. As such, there is no impact.					
d) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?					X
The proposed project includes a new storm drain facility and will not displace any person, nor necessitate the construction of replacement housing elsewhere.					
14. PUBLIC SERVICES. Would the project:					
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
i) Fire protection?					X
The proposed project includes a new storm drain facility to address flooding of San Ramon Canyon and W. 25th Street. As a result, neither the project nor the resulting use will require additional fire protection service. Thus, the proposed project will have no impact on fire protection.					
ii) Police protection?					X
The proposed project includes a new storm drain facility to address flooding of San Ramon Canyon and W. 25th Street. As a result, neither the project nor the resulting use will require additional police protection service. Thus, the proposed project will have no impact on police protection.					
iii) Schools?					X
The proposed project does not result in an increase in the student population. As such, the project will have no such impact on schools.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Parks?					X
The proposed project does not generate additional population that would utilize park facilities. As such, the project will have no such impact.					
v) Other public facilities?					X
The proposed project is anticipated to have no such impact on other public facilities in the City.					
15. RECREATION. Would the project:					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X	
A new trail is proposed along the southern portion of the project in the City's Shoreline Park, seaward of PV Drive South/W 25th Street, to minimize visual impacts after construction and facilitate pedestrian access to the coast. The proposed project is not anticipated to 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. Impacts are therefore less than significant on existing recreational facilities.					
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X	
A new trail is proposed along the southern portion of the project in the City's Shoreline Park, seaward of PV Drive South/ W 25th Street, to minimize visual impacts after construction and facilitate pedestrian access to the coast. Impacts are therefore less than significant on existing recreational facilities.					
16. 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?	City General Plan		X		
During construction, short-term related traffic impacts may result. Mitigation measures will be implemented which limits the number of construction vehicles on the street at one time, traffic control measures, construction timing and construction phasing to avoid peak hours. As a result of mitigation, the impacts will be less than significant.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	City General Plan				X
The proposed project is not anticipated to 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 inadequate emergency access or inadequate access to nearby uses?	City General Plan		X		
After construction, the proposed project is not anticipated to result in inadequate emergency access or inadequate access to nearby uses. Consequently, the proposed storm drain will minimize the flooding that results in the closure of W. 25 th Street, which will ensure that the roadway remains open and emergency access is maintained along this major arterial. During construction, short-term access impacts may result. Mitigation measures will be implemented which limits the number of construction vehicles on the street at one time, traffic control measures, construction timing and construction phasing to avoid peak hours.					
d) Result in insufficient parking capacity on-site or off-site?	City General Plan		X		
After construction there will be no long-term parking impacts. During construction, short-term related parking impacts may result. Mitigation measures will be implemented which limits the number of construction vehicles on the street at one time, traffic control measures, construction timing and construction phasing to avoid peak hours. As a result of mitigation, the impacts will be less than significant.					
e) Result in change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	City General Plan				X
The storm drain project will not result in change to air traffic patterns. No impacts are anticipated.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with adopted policies, plans or programs supporting alternative transportation, including mass transit and non-motorized travel and relevant components of the circulation system (e.g., bus turnouts, bicycle racks)?	City General Plan				X
The proposed project includes a new storm drain facility, which does not increase demand for transportation. Thus, the project will not conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).					
g) Substantially increase hazards due to a design feature (e.g. sharp curve or dangerous intersections) or incompatible uses (e.g. farm equipment)?	City General Plan				X
The proposed project will not result in the reconfiguration of any streets or highways, Thus, the proposed storm drain project will not increase hazards due to a design feature (e.g. sharp curve or dangerous intersections) or incompatible uses (e.g. farm equipment).					
17. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?					X
The proposed project includes a new storm drain facility, which does not increase demand or exceed requirements for wastewater treatment facilities. Thus, the project will not exceed wastewater treatment requirements of the Los Angeles 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?					X
The proposed project includes a new storm drain facility, which does not increase demand for new water or wastewater treatment facilities or expansion of existing facilities.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X	
The San Ramon Canyon storm drain project is intended to serve a necessary drainage purpose and to prevent potential degradation of topsoil, property damage, and potentially avoid a hazard to public safety. The existing San Ramon Canyon storm drain will remain in place act as an “over-flow” during significant storm events. Construction of the new storm drain will have short-term environmental effects on traffic, air quality and noise that can all be mitigated to less than significant levels. Long-term environmental effects on biological and cultural resources after construction will be mitigated to less than significant levels. Other long-term environmental effects after construction are considered a beneficial impact from the improvement of storm flows.					
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?					X
The proposed storm drain project is anticipated to have no such impact on existing water supplies available to serve the City.					
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?					X
The proposed storm drain project is not anticipated to result in a determination by the wastewater treatment provider that it has adequate capacity to serve demand.					
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X	
The project will generate additional waste from regular maintenance and cleaning of the catch basins. Based on information from the City's public works dept, the local landfills have sufficient disposal capacity. Therefore, the proposed project is anticipated to have a less than significant impact on solid waste disposal.					
g) Comply with federal, state and local statutes and regulations related to solid waste?					X
The proposed storm drain project complies with all federal, state and local statutes related to solid waste.					

Issues and Supporting Information Sources	Source Document	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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16. MANDATORY FINDINGS OF SIGNIFICANCE
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? With mitigation incorporated into the project description, construction of the storm drain will not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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. The City NCCP identifies the lower San Ramon Canyon repair as an approved project with an allowable impact area maximum of 2.0 acres of CSS habitat, and 6.0 acres of non-native grassland habitat. Based on the biological report prepared for this project, the 0.34 acres of CSS habitat loss and 1.36 acres of grassland habitat loss are significantly below the allowable maximum from the NCCP approved project. Construction of the inlet structure and canyon stabilization (buttress fill and terrace drains) will impact approximately 0.07 acres of jurisdictional drainage because of the canyon's connection to the ocean. This jurisdictional drainage is not considered wetlands habitat. Post-construction re-vegetation of the streambed and affected canyon slopes with native vegetation will be required at a 3:1 ratio (0.21 acres total). Re-vegetation activity will include a plant palette, consistent with the Resource Agency and Native Plant Society criteria, that lists exact species of plants to be restored and the native plants derived from local genetic sources be used. The San Ramon Canyon storm drain project is intended to serve a necessary drainage purpose to prevent potential degradation of topsoil, property damage, and potentially avoid a hazard to public safety. The project will not violate any water quality standards.
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 the past projects, the effects of other current projects, and the effects of probable future projects.) Based on the cumulative assessment prepared in Section 1.5 of the EA/MND and consistent with NEPA requirements to review the effects of cumulative projects in the area, the proposed project will have no such cumulatively considerable impact.
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? The proposed project will have no such impact. The project will create a beneficial impact from the improvement.