CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

DATE: May 8, 2008

TO: Public Works Committee
Los Angeles City Council
Attn: Adam Lid, Committee Clerk
Messenger Mail Stop 160

FROM: Michael Kantor, Acting Deputy City Engineer
Executive Division, Bureau of Engineering

SUBJECT: **Council File 08-0504 Certification of Environmental Impact Report, etc., for the Venice Dual Force Main Sewer**

Please substitute the attached May 2008 updated versions of "Findings and Statement of Overriding Considerations" and "Mitigation Monitoring Program" for the December 2007 versions previously referred to the Public Works Committee.

Pages 3-5 of the December 2007 findings describe the location of construction activities for the proposed project (Section 2.2 The Proposed Project). The Bureau of Engineering now proposes more construction sites, which are described in the proposed May 2008 revision. As a result of this change, we also propose insertion of an additional section, 2.3 Changes to the Proposed Project Subsequent to Circulation of the EIR, in keeping with the state CEQA Guidelines.

Similarly, pages 1-2 of the December 2007 Mitigation Monitoring Program should be revised to reflect the currently-proposed construction sites.

Please contact Jim Doty at 213-485-5759 if you need any more information.

JED:Revision of Findings
Attached: Findings and Statement of Overriding Conditions dated May 2008
Mitigation Monitoring Program dated May 2008

cc/Attach: Sean Zahedi, Project Manager
Wastewater Conveyance Engineering Division

MAY 0 8 2008
PUBLIC WORKS

FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS

FOR

Venice Pumping Plant Dual Force Main

W.O. SZC11631 (formerly W.O. E1700500)

SCH #2003031001

Prepared by

CITY OF LOS ANGELES
BUREAU OF ENGINEERING

May 2008

TABLE OF CONTENTS

FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS 1
1.0 INTRODUCTION 1
2.0 Project Description 3
2.1 Objectives, Purposes and Needs 3
2.2 The Proposed Project 3
2.3 Changes to the Proposed Project Subsequent to Circulation of the EIR 5
3.0 FINDINGS REGARDING ENVIRONMENTAL EFFECTS 6
3.1 Air Quality 6
3.2 Biological Resources 8
3.3 Circulation, Traffic and Transportation 10
3.4 Cultural and Paleontologic Resources 12
3.5 Geology, Soils and Seismicity 16
3.6 Hazardous Waste and Materials 18
3.7 Hydrology, Water Quality and Stormwater Runoff 20
3.8 Noise and Vibration 22
3.9 Public Facilities and Services 24
3.10 Visual and Aesthetic Resources 26
3.11 Cumulative Effects 28
4.0 ALTERNATIVES CONSIDERED 29
4.1 No Project Alternative 29
4.2 Cut and Cover Along Preferred Alignment 29
4.3 Pacific Avenue Alignment 29
4.4 Dockweiler Beach Alignment 30
4.5 Environmentally Superior Alternative 31
4.6 Other Alternatives 31
5.0 STATEMENT OF OVERRIDING CONSIDERATIONS 31

VENICE PUMPING PLANT

DUAL FORCE MAIN PROJECT

FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS

1.0 INTRODUCTION

Section 21081 of the California Public Resources Code and Section 15091 of the California Environmental Quality Act (CEQA) Guidelines requires a public agency, prior to approving a project, to identify significant impacts of the project and make one or more written findings for each such impact. The findings reported in the following pages summarize the discussions and conclusions regarding the significant or potentially significant environmental impacts of the Venice Pumping Plant Dual Force Main project, as presented in the Environmental Impact Report (EIR) for the project.

This Findings and Statement of Overriding Considerations document is divided into five major sections. The Introduction provides background information regarding the purpose of the document. The Project Description describes the City's objectives and the proposed project. The Findings Regarding Environmental Effects section presents the effects associated with the proposed project. The Alternatives Considered section describes alternatives developed and considered for the Venice Pumping Plant Dual Force Main project, the reasons for selection of the preferred alternative and the reasons for rejection of the remaining alternatives. Finally, the Statement Of Overriding Considerations section is provided for those adverse effects that cannot be avoided, even with proposed mitigation measures.

The Findings Regarding Environmental Effects section discusses the following for each significant or potentially significant impact associated with the project:

1) Descriptions of the Significant or Potentially Significant Effects - Specific descriptions of the environmental effects (Significant, Potentially Significant, and Not Significant) are identified in the EIR.

2) Mitigation Measures - Potential mitigation measures for the identified significant or potentially significant impacts.

3) Findings - The findings made are those allowed by Section 21081 of the Public Resources Code. One of three findings is made for each significant or potentially significant impact, following Section 15091 of the CEQA Guidelines:

i. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

ii. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

iii. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

A judgment is then provided regarding the significance of the environmental impacts after mitigation.

4) References - A notation on the specific section in the EIR which supports the findings.

This Findings and Statement of Overriding Considerations document describes only those impacts anticipated to be significant or potentially significant. For information regarding the impacts that were determined not to be significant, please see the Final EIR for the Venice Pumping Plant Dual Force Main project.

The mitigation measures identified in the Mitigation Monitoring and Reporting Program for the Venice Pumping Plant Dual Force Main project, which is provided under separate cover, are those identified within this Findings and Statement of Overriding Considerations document.

The documents and other materials that constitute the record of proceedings upon which the decision of the Los Angeles City Council is based are located in the Office of the City Clerk, and in the Department of Public Works Bureau of Engineering in the custody of the City Engineer at 1149 S. Broadway, 7th Floor, Los Angeles, California.

2.0 PROJECT DESCRIPTION

2.1 Objectives, Purposes and Needs

The City of Los Angeles is proposing to construct and operate a new force main sewer, 54 inches in diameter and extending about two miles from the existing VPP at 140 Hurricane Street in the community of Venice to a junction structure on the Coastal Interceptor Sewer in the community of Playa Del Rey on Vista Del Mar near Waterview Street. The new force main sewer would be used in tandem with the existing force main sewer for the purpose of fulfilling the City's objectives, purposes and needs for sewage conveyance capacity, pipeline redundancy, and maintenance.

2.1.1 Sewage Conveyance Capacity

The VPP is the largest wastewater pumping plant in the City of Los Angeles. It collects sewage from the coastal areas of the City and pumps it to the Hyperion Treatment Plant in Playa Del Rey. The VPP's existing 48-inch-diameter force main sewer, built in 1958, can handle only about 60 percent of the flows that could otherwise run through the VPP when all five of its pumps are running at full capacity. When flows into the VPP exceed flows out of the plant, wastewater will overflow directly into Ballona Lagoon. During heavy storms, such as those that occurred during the winters of 1994-95 and 2004-05, the excess wastewater at the plant came within minutes of overflowing into Ballona Lagoon. Additional conveyance capacity from VPP is needed to manage peak flows.

2.1.2 Pipeline Redundancy

The existing pipeline is a critical link in the City's wastewater conveyance system. A second, tandem line is needed to provide additional protection against the risk of system failure.

2.1.3 Maintenance

The existing 48-inch pipeline was built in 1958 and has been in continuous operation since then. The existing pipeline is the only feasible way to convey sewage flows from the VPP to the Hyperion Treatment Plant and therefore must be operated continuously. A second, tandem line is needed to allow the existing line to be bypassed, allowing repair and maintenance of the existing pipeline, which is currently not possible.

2.2 The Proposed Project

The City proposes to construct and operate the Venice Dual Force Main along the Via Marina/Pacific Avenue alignment described in the EIR and hereinafter referred to as the "preferred alternative." From the existing VPP on Hurricane Street, the alignment would proceed east under the Grand Canal and along Marquesas Way, then southeasterly on Via Marina and portions of the county parking lot, then under the Marina Del Rey entrance and Ballona Creek channels

to a point on the south side of Ballona Creek at Pacific Avenue. From there, the alignment continues south along Pacific Avenue and Vista Del Mar to the connection in Vista Del Mar near Waterview Street.

Construction would be by a combination of boring and cut-and-cover construction methods. Surface construction activities (construction management offices, materials staging, boring, etc.) would occur on or near the following sites:

- Venice Pumping Plant (140 Hurricane Street) and vicinity, which may include Hurricane Street between Canal Court and Grand Canal, the city-owned lots at 139 Hurricane Street and the county-owned lot at 3821 South Via Dolce.
- The intersection of Marquesas Way and Via Dolce.
- The intersection of Marquesas Way and Via Marina.
- Via Marina north of Tahiti Way.
- Via Marina north of Bora Bora Way.
- Via Marina about 300 feet north of the entrance to Los Angeles County Marina del Rey Parking Lot 13 (4601 Via Marina).
- The south end of Los Angeles County Marina del Rey Parking Lot 13 (4601 Via Marina).
- Pacific Avenue at 62nd Avenue and vicinity, which may include adjacent portions of 62nd Avenue, Los Angeles County 62nd Avenue Parking Lot, the access road along the south side of Ballona Creek channel, and 650 E 62nd Avenue.
- Pacific Avenue south of 65th Avenue.
- Pacific Avenue near Argonaut Street.
- Pacific Avenue about 50 feet south of Convoy Street.
- Vista Del Mar at Montreal Street.
- Vista Del Mar at Sunridge Street.
- Cut and cover in Vista Del Mar from Sunridge Street to about 150 south of Waterview Street. Construction activities may include adjacent portions of Dockweiler Beach, and minor portions of the "LAX Dunes" property (such as the area recently used for the North Outfall Sewer rehabilitation project).

Field offices for construction management and staging of equipment and materials may also occur at nearby city properties such as 311 Thatcher Avenue ("Thatcher Yard") and 3507 Via Dolce in addition to the foregoing areas.

This alternative route has an estimated construction cost of $48 million. The cost estimates herein are order-of-magnitude estimates intended to provide a measure of comparative feasibility. A more precise cost estimate can't be made until a project is selected and designed.

2.3 Changes to the Proposed Project Subsequent to Circulation of the EIR

The proposed project is a combination of the boring and cut-and-cover construction methods discussed in the EIR. More boring sites are proposed than described for the boring alternative in the Final EIR, but the project would entail less surface disturbance than the "cut and cover" alternative.

The additional boring sites reduce the distance between sites and therefore the time required to bore each segment. Therefore, the disturbance at any single site (e.g., noise) will be less than predicted in Final EIR. Overall, the construction of additional pits will cause more impact than described for the boring alternative, but still less than would be expected from the cut and cover alternative.

The number of concurrently active sites will not change, therefore the rate at which air pollutants will be generated by construction activity (in lbs/day) will not change.

The boring rate will not change, therefore the traffic associated with material supply and haul-away will not change substantially. The traffic directly associated with the construction and abandonment of the construction pits would increase, but this is expected to be a minor portion of the overall traffic generated by project construction. Finally, the project's affect on circulation will not change appreciably, since the affected streets and total duration of lane closures in any single street will not change.

Section 15088.5 of the state CEQA Guidelines describes the conditions under which an EIR must be recirculated. Based on the foregoing, we conclude that the additional pits would not involve new significant effects nor substantially increase the severity of any previously identified significant effect and therefore these changes are insignificant modifications and the EIR will not be recirculated.

3.0 FINDINGS REGARDING ENVIRONMENTAL EFFECTS

This section discusses impacts and mitigation measures identified for the preferred alternative, and makes findings for all impact areas. Significant or potentially significant impacts prior to the application of mitigation measures have been identified for the proposed project in the following areas: air quality; biological resources; circulation, traffic and transportation; cultural/paleontological resources; geology, soils and seismicity; hazardous waste and materials; hydrology, water quality/stormwater runoff; noise and vibration; public facilities and services; and visual and aesthetic resources. All of these impacts would be confined to the project's construction period. The preferred alternative would not have significant or potentially significant operational impacts.

3.1 Air Quality

This section discusses the significant or potentially significant air quality impacts related to the construction and operation of the preferred alternative.

3.1.1 Description of Potential Effects

NO_x in exhaust emissions generated by construction equipment is expected to exceed SCAQMD threshold values and cause a significant impact on basin-wide air quality unless mitigation measures for NO_x are implemented.

Once completed, operation of the proposed force main sewer is expected to have a negligible net effect on air quality because there would be a negligible increase in operating equipment, such as pumps, and in maintenance activity. Based on the above operational characteristics, the proposed Project is not likely to impede the progress of the South Coast Air Basin in complying with federal or state ambient air quality standards, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors.

3.1.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts. To minimize NO_x emissions, the City will implement the following mitigation measures whenever feasible:

AQ1 Strategize and plan ahead to minimize the transporting of construction equipment and excessive material to and from work area.

AQ2 Optimize construction crew size and select equipment to reduce any unnecessary emissions.

AQ3 Adjust the electronic timing on the construction equipment when feasible.

AQ4 Use newer construction equipment such as equipment meeting Tier 2 emission standards when feasible.

AQ5 Minimize idling emissions from construction equipment and haul trucks by turning them off when not in use or during potential long delays (i.e., over 5 minutes).

AQ6 Optimize the muck removal schedule to reduce emissions from haul trucks.

AQ7 Use alternative fuel such as biodiesel, liquid natural gas, and propane when feasible.

To minimize PM_{10} emissions, the City will implement the following mitigation measures whenever feasible:

AQ8 Disturbed land and open storage piles that will be left inactive for several days, shall be stabilized by one, or a combination, of the following methods: (a) applying a chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of 6 months, (b) covering, or (c) watering three times per day.

AQ9 Soil exposed by construction activities shall be revegetated or otherwise covered so as to prevent the generation of wind-borne dust as soon as possible.

AQ10 All active unpaved demolition and construction areas shall be wetted at least three times daily during excavation and construction. The construction area shall be sufficiently dampened to control dust caused by construction and hauling and at all times provide reasonable control of dust by wind.

AQ11 During periods of high winds (i.e., greater than 15 mph) either (a) cease all clearing, earth moving and excavation activities or (b) apply water to soil not more than 15 minutes prior to moving the soil.

AQ12 All truck loads of imported or exported soil or debris shall be either (a) securely covered or (b) comply with vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads and be sufficiently watered to prevent excessive amount of dust.

3.1.3 Findings

Mitigation measure AQ9 has been re-worded from that stated in the EIR. The City finds that the measure as it is now stated is equivalent or more effective than the measure stated in the EIR.

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect on air quality as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts from NO_X emissions related to the project are found to be **significant.**

3.1.4 References

Section 5.2 and Appendix C of the Draft EIR and the Final EIR discuss the project's air quality impacts and mitigation measures.

3.2 Biological Resources

This section discusses the significant or potentially significant impacts to biological resources that may be caused by the construction and operation of the preferred alternative.

3.2.1 Description of Potential Effects

Biological resources within the proposed Project areas have been studied and analyzed for the purpose of determining any impacts to the environment resulting from the construction of the proposed sewer main. The findings and conclusions are contained Section 5.3 and Appendix D to the EIR.

California Least Tern

Noise and other activities associated with project construction would not affect least tern nesting because construction activities will be 1,000 linear feet or further from the least tern nesting area. Least tern foraging could be impacted in the unlikely event that the project causes increased turbidity in adjacent waters and thereby either reduces local prey availability and/or compromises visibility of prey. However, mitigation measures have been identified that will prevent any permanent or temporary effects on the California least tern.

Temporary Impacts

Temporary impacts associated with construction include physical disturbance, noise and releases of excavated sediments and water into the local environment. No physical disturbance of local resources is anticipated. Noise is most likely to impact bird use in the construction areas. Bird use in the project area is greatest at Ballona Lagoon where construction will be several hundred feet from the lagoon and separated by a residential area. Noise impact areas are expected to be minimal. Temporary impacts to water quality and marine resources could occur through the unintentional release of excavated sediments and water into

the local environment. However, mitigation measures have been identified for all construction phases to minimize impacts.

Long Term Impacts
While temporary impacts associated with all three construction methods are possible, the proposed project is not likely to result in a long-term reduction in water quality, reduction in the numbers of individuals or species or loss of habitat in the area. No permanent impact to the water quality or marine resources in the project area are anticipated.

Unavoidable Adverse Impacts
If management practices to control the unintentional release of excavated sediments and water into the local environment are successful, no unavoidable adverse impacts are expected.

Cumulative Impacts
No significant cumulative impacts have been identified to biota or habitats in the project area. There are no other known projects in the vicinity of the proposed project that, when considered together, would result in significant adverse impacts to the wildlife and habitats in the Marina del Rey area.

3.2.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts:

BIO 2 To protect foraging of the least tern when tunneling activities are to occur during the least tern nesting season (April 1 through August 31), a water quality specialist or biological monitor shall conduct surveys at tunneling locations a minimum of once daily to ensure that tunneling does not increase water turbidity.

If any turbidity from the tunneling activities is discovered in least tern foraging areas, the tunneling activities shall cease until corrective measures are taken to prevent tunneling activities from causing increased turbidity.

BIO 3 Environmentally sensitive habitat areas shall be protected, and where feasible, enhanced. If any environmentally sensitive habitat area is disturbed, the area shall be restored to its previous condition in accordance with the applicable Land Use Plan and Local Coastal Program.

Marine resources shall be maintained, enhanced, and where feasible, restored. If any marine resources are disturbed, the resources shall be restored to its previous condition in accordance with the applicable Land Use Plan and Local Coastal Program.

3.2.3 Findings

Mitigation measure BIO2 has been re-worded from that stated in the EIR. The City finds that the measure as it is now stated is equivalent or more effective than the measure stated in the EIR.

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect on biological resources as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts are found to be **not significant.**

3.2.4 References

Section 5.3 and Appendix D of the Draft EIR and the Final EIR discuss the project's biological resource impacts and mitigation measures.

3.3 Circulation, Traffic and Transportation

This section discusses the significant or potentially significant circulation, traffic and transportation impacts related to the construction and operation of the preferred alternative.

3.3.1 Description of Potential Effects

Construction activities, including trenches, pits and lay-down areas, will produce temporary localized impacts on the transportation system from the combined effects of additional construction traffic and closure of travel lanes on certain roadways leading to reductions in roadway capacity and temporary loss of parking.

Construction activities could affect the transit system by requiring the temporary relocation of transit bus stops on Via Marina southbound at Marquesas Way, Tahiti Way, and Captain's Row Drive for MTA Lines 108 and 358 and LADOT Commuter Express Line 437.

Construction activities could result in a temporary impact on traffic on two roadways in the Playa Del Rey area:

- Pacific Avenue from 63rd Avenue to 64th Avenue,
- Vista Del Mar from Pacific Avenue to Surf Street; and
- Vista Del Mar from Sunridge Street to Napoleon Street

Construction activities will temporarily affect the parking supply at the following locations:

- Venice Pumping Plant

- Via Dolce near Marquesas Way
- Marquesas Way from Via Dolce to Via Marina
- Los Angeles County Marina del Rey Parking Lot 13 (4601 Via Marina)
- Via Marina east of Pacific Avenue
- Los Angeles County's 62nd Avenue Parking Lot
- Pacific Avenue south of 62nd Avenue
- Del Rey Lagoon off-street parking lot
- Vista del Mar south of Napoleon Street

3.3.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts:

TRA 1 To coordinate with the City to ensure adequate traffic signals and controls are in place prior to and during times of construction, a construction traffic management plan shall be prepared for each construction site and submitted to the City for review and approval prior to the start of any construction work.

TRA 2 To adequately control traffic to ensure compliance with all local and state safety standards and specifications, a site-specific construction worksite traffic control plan shall be prepared for each construction site and submitted to the City for review and approval prior to the start of any construction work. This plan shall include such elements as the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours, protective devices and traffic controls (such as barricades, cones, flagmen, lights, warning beacons, temporary traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas.

Coordinate with emergency service providers (police, fire, ambulance and paramedic services) to provide advance notice of any lane closures, construction hours and changes to local access and to identify alternative routes where appropriate.

TRA 3 To reduce traffic congestion, fully utilize available street space to minimize lane reductions on affected streets, including elimination of onstreet parking where necessary. Implement left-turn restrictions as appropriate on re-striped street segments to facilitate the movement of through traffic. Only eliminate travel lanes when absolutely necessary.

TRA 4 To protect pedestrian and recreational traffic, provide signage indicating alternative pedestrian and bicycle access routes where existing facilities would be affected.

TRA 5 To ensure ingress/egress to all properties adjacent to the project and surrounding areas, provide advance notice to any affected residents, businesses and property owners in the vicinity of each construction site and, where existing property access will be reduced, identify alternative means of access.

TRA 6 To avoid impacts to public transportation, coordinate with pubic transit providers (MTA, LADOT Commuter Express, Culver City Bus) to provide advance notice of any lane closures, construction hours and, where necessary, to identify sites for temporary bus stops within a reasonable walking distance of any displaced bus stops.

3.3.3 Findings

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect on circulation, traffic and transportation as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts are found to be **not significant.**

3.3.4 References

Section 5.4 and Appendix E of the Draft EIR and the Final EIR.

3.4 Cultural and Paleontologic Resources

This section discusses the significant or potentially significant cultural/paleontologic resource impacts related to the construction and operation of the preferred alternative.

3.4.1 Description of Potential Effects

CULTURAL RESOURCES

Direct impacts are those that may result from the immediate disturbance of resources, whether from removal of vegetation, demolition of structures, earth-moving activities or excavation. Since the proposed Project will entail surface and subsurface disturbance of the ground, the proposed Project has the potential to cause a significant impact on unknown cultural resources.

One archaeological site is recorded in the vicinity of the Vista Del Mar alignment area. The area has been repeatedly impacted by development. It is possible that if the location retains any integrity, remnants may be present under the pavement of the Vista Del Mar alignment area; however, it is the Archaeologists' opinion that there is insufficient evidence that a cultural resource is present. Therefore, direct and cumulative impacts to archaeological resources are not expected.

PALEONTOLOGIC RESOURCES
A literature review, an archival search and a field survey were conducted and no fossil has been found at the project site. However, fossils have been found at other sites underlain by the geologic units that occur under or near the project site, which suggests that significant fossils may be encountered by the proposed Project.

Coastal Deposits –The coastal deposits have yielded fossil remains at numerous previously recorded fossil sites near the Project site. Any adverse environmental impact on the paleontologic resources of the coastal deposits that would result from earth-moving activities at and near the surface probably would be considered to be of low significance because the coastal deposits at and near the surface probably are too young.

Playa Del Rey –Although no previously recorded fossil site is reported as occurring in the coastal deposits at the Project site, fossilized shells of marine mollusks were encountered below the water table at depths of 2 to 31 feet below grade in 28 borings made immediately east of the Project alignment in Playa Vista, and fossilized wood was encountered in one of the borings at a depth nearly 70 feet below grade.

Direct impacts would result mostly from earth-moving activities (primarily trenching and boring for pipeline) in previously undisturbed strata. Although earth-moving activities would be comparatively short term, the possible accompanying loss of some fossil remains, unrecorded fossil sites, associated specimen data and corresponding geologic and geographic site data, and the fossil-bearing strata is a potentially significant long-term adverse environmental impact.

The Palos Verdes Sand has yielded abundant fossil remains at several previously recorded fossil sites near the Project area. For this reason, adverse environmental impacts on the paleontologic resources of the Palos Verdes Sand that would result from earth-moving activities at the Project site would be considered to be of high paleontologic significance because there probably is a high potential for the loss of scientifically important fossil remains, unrecorded fossil sites, and associated specimen data and corresponding geologic and geographic site data as a result of these activities.

There would be no impact on paleontologic resources during the operational phase of the Project.

3.4.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts:

CR 1 To avoid impacts to areas where cultural resources are known to exist, an archaeologist qualified to recognize and assess both prehistoric and historical resources shall monitor all excavation.

CR 2 To avoid impacts to areas where cultural resources are known to exist, when avoidance cannot be achieved, alternate measures such as surface collection and/or subsurface data recovery of significant sites must be implemented.

CR 3 In the event of the discovery and subsequent recovery of fossil remains, the engineer shall halt construction temporarily while remains are analyzed prior to resuming construction.

CR 4 An archaeologist qualified to recognize and assess both prehistoric and historical resources shall monitor all excavation in the vicinity of the CA-LAN-66 site located in Vista Del Mar.

CR 5 If new discovery is encountered Develop a contingency plan for addressing unanticipated new discoveries of cultural resources in the project area, evaluate and report any findings.

CR 6 If significant cultural resources are found during construction, those significant cultural resources found shall be recovered from the project site, curated by an archaeologist recommended by the City and offered to an area museum whose collection is available for the viewing by the public.

PAL 1 Prior to construction, the services of a qualified vertebrate paleontologist approved by the City of Los Angeles and Los Angeles County Museum of Natural History will be retained to implement the mitigation program during earth-moving activities at the project site.

PAL 2 The paleontologist will develop a formal agreement with a recognized museum repository, such as the LACMVP or LACMIP, regarding the final disposition and permanent storage and maintenance of any fossil remains and the archiving of associated specimen data and corresponding geologic and geographic site data that might be recovered as a result of the mitigation program, and the level of treatment (preparation, identification, curation, cataloguing) of the remains that would be required before the entire mitigation program fossil collection would be accepted by the repository for storage.

PAL 3 The paleontology monitor will coordinate with the appropriate construction contractor personnel to provide information regarding lead agency requirements for the protection of paleontologic resources. Contractor personnel also will be briefed on procedures to be followed in the event

that a fossil site or remains are encountered by earth-moving activities, particularly when the monitor is not on site. The briefing will be presented to new contractor personnel as necessary. Names and telephone numbers of the monitor and other appropriate mitigation program personnel will be provided to the appropriate contractor personnel.

PAL 4 Earth-moving activities will be monitored by the monitor only in those areas of the project site where these activities will disturb previously undisturbed strata. Monitoring will be conducted on a full-time basis in areas underlain by the Palos Verdes Sand and, once the activities have reached a depth 5 feet below grade, on a full-time basis in areas underlain by the coastal deposits and on a half-time basis in areas underlain by the dune sand. If fossil remains are encountered by these activities, monitoring will be increased to full time, if appropriate, at least in the vicinity of the fossil site where the area is underlain by the fossil-bearing rock unit. If no fossil remains are found once 50 percent of earth-moving activities have been completed in an area underlain by a particular rock unit, with City of Los Angeles approval, monitoring can be reduced or suspended in that area.

PAL 5 All fossil specimens recovered from the project site as a result of the mitigation program, including those recovered as the result of processing fossiliferous rock samples, will be treated (prepared, identified, curated, catalogued) in accordance with designated museum repository requirements. Small rock samples from the Palos Verdes Sand, dune sand, and coastal deposits will be submitted to commercial laboratories for microfossil, pollen, or radiometric (carbon-14) dating analysis.

PAL 6 The discovery of paleontologic resources may be present in specific project areas where grading and other excavation activities are to occur. Monitoring will consist of visually inspecting debris piles and freshly exposed strata for larger fossil remains, and periodically dry test screening sediment, rock, and debris for smaller fossil remains. As soon as practicable, the monitor will recover all vertebrate fossil specimens, a representative sample of invertebrate or plant fossils, or any fossiliferous rock sample that can be recovered easily. If recovery of a large or unusually productive fossil occurrence is warranted, earth-moving activities will be diverted temporarily around the fossil site and a recovery crew will be mobilized as necessary to remove the occurrence as quickly as possible. If not on site when a fossil occurrence is uncovered by these activities, the activities will be diverted temporarily around the fossil site and the monitor called to the site to evaluate and, if warranted, recover the occurrence. If the fossil site is determined too unproductive or the fossil remains not worthy of recovery, no further action will be taken to preserve the fossil site or remains, and earth-moving activities will be allowed to commence.

3.4.3 Findings

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect on cultural and paleontologic resources as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts on historic resources are found to be **not significant**. However, with mitigation, the potential impacts to archaeological or paleontologic resources encountered during tunneling under the channels are found to be potentially **significant**.

3.4.4 References

Section 5.5 and Appendix F of the Draft EIR and the Final EIR discuss the project's cultural/paleontologic resource impacts and mitigation measures.

3.5 Geology, Soils and Seismicity

This section discusses the significant or potentially significant geology, soil and seismicity impacts related to the construction and operation of the preferred alternative.

3.5.1 Description of Potentially Significant Effects

Seismic hazards associated with seismic activity are described as follows:

Ground Shaking – The proposed Project will be subjected to periodic seismic shaking, perhaps of considerable intensity. All of the alternative alignments of the proposed project would be equally impacted by strong ground shaking.

Liquefaction – Because of the combination of sands and shallow groundwater in the project area, liquefaction is considered a significant potential seismic hazard along all of the alternative alignments for the Project.

Differential Seismic Settlement – The components of the project are situated entirely upon saturated soils, which would be prone to differential settlement, primarily if liquefaction occurred. Differential settlement represents a potential seismic hazard along all of the alternative alignments for the Project.

Surface Fault Rupture – No known active or potentially active fault traces cross the proposed Project area. The potential for surface fault rupture is not significant.

Tsunami –The elevation of the Project site [approximately 10 feet mean sea level (MSL), or 6 meters] stands below the highest potential tsunami event.

Although the pipeline would be buried at depths no shallower than 10 feet below the surface, the possibility of damage to the proposed pipeline cannot be disregarded. A catastrophic tsunami could result in erosion of the surficial soils covering the proposed pipeline. However, this risk is very low when compared to the risk to existing surface structures in the project area from a tsunami.

Seiche – The nearby semi-enclosed Marina Del Ray harbor could be subject to seiche during a seismic event. However, because the proposed Project components will be buried in the subsurface, it is unlikely that impacts from seiche, if any, would affect the project. Therefore, seiches are not considered a significant seismic hazard for the proposed Project.

Seismically Induced Landslides – The potential for landslides induced by seismic shaking is not anticipated to pose a significant seismic hazard to the proposed Project.

Subsidence – The need for construction dewatering and the associated risk of subsidence will be minimized because the majority of the pipe will be installed by boring. However, subsidence is considered a potential impact of the proposed Project.

Expansive Soils – Expansive soils are not anticipated to pose a significant hazard to any of the alternative alignments of the proposed Project.

Collapsible Soils – Collapsible soils are not likely to affect any of the alternative alignments of the proposed Project.

Landslides – The potential for landslides induced by mechanisms other than seismic shaking is not anticipated to pose a significant hazard to the proposed Project. It is not anticipated that the Project would cause any slope instability to the adjacent Del Rey Bluffs.

Methane – Methane gas is considered a potential hazard to the proposed Project, primarily during construction, or at permanent structures, such as vaults, where gas could accumulate.

Mineral Resources – No effect on mineral resources is expected from construction or operation of the proposed project.

3.5.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts:

GEO2 Liquefaction and differential seismic settlement may occur on the project. Design and construction of the proposed project will include appropriate measures.

GEO3 Subsidence may occur to the project area. Design and construction of the proposed project will include appropriate measures, such as a watertight excavation support system to minimize groundwater pumping or construction the pipeline in a "wet" excavation.

GEO4 Methane gas may be detected along the project alignments. Design and construction of the proposed project will include active or passive mitigation systems for methane gas hazards, if necessary.

3.5.3 Findings

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect on geology, soils and seismicity as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts are found to be **not significant**.

3.5.4 References

Section 5.6 of the Draft EIR and the Final EIR discuss the project's geology and soils impacts and mitigation measures.

3.6 Hazardous Waste and Materials

This section discusses the significant or potentially significant risks of encountering or accidentally releasing hazardous waste or hazardous materials related to the construction and operation of the preferred project.

3.6.1 Description of Potential Effects

Oilwell Field Hazards -- The proposed Project is within an area of oil well field development known as the Playa Del Rey Field. There are several abandoned oil wells along the proposed alignment. Hazardous and toxic materials associated with past well field development may be encountered during construction.

Migration Pathways -- Natural gas can migrate through the soil both vertically and laterally via manmade structures. The construction of the proposed Project will incrementally add to the potential migration pathways currently provided by existing infrastructure.

Risk of Explosion -- Explosive gases may exist in the soil in the Project area. In addition, releases of gas from the abandoned wells may occur if construction

activities accidentally puncture the casing of an abandoned well, leading to a possible explosion.

Potential Spills Or Releases -- Construction of the Project will involve the use of hazardous materials and generation of hazardous waste that could be accidentally spilled or released. If a spill were to occur, emergency response procedures would be implemented to contain and clean up the spill. There are regulations in place regarding such procedures, and provisions would be in place from the onset of Project activities in order to eliminate, or at least minimize, potential spills and releases that might create a hazard to the public or the environment, or result in contamination of soil or groundwater. Therefore, impacts would be less than significant.

Exposure To Contamination -- During construction, there is the potential for the disturbance of contaminated soils and groundwater that could pose a risk of exposure to construction workers, the public, and the environment.

In addition, emissions of diesel particulate matter from the construction equipment would result in increased exposure near the construction activities. However, these emissions would be temporary and would not contribute significantly to chronic long-term exposure. Ongoing compliance with regulatory requirements under any alternative would provide an environment in which construction workers, the public, and the environment in, and near, the Project site would be protected.

Hazardous Waste Generation -- Hazardous wastes generated during construction activities for each of the alignments would include miscellaneous motor vehicle fluids, potentially contaminated soil, and spent materials used during construction; such as fuels, lubricants, paints, and solvents.

3.6.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts:

HAZ1 Abandoned wells and other subsurface structures may be encountered during construction. Any wells that must be re-abandoned, will be re-abandoned in accordance with applicable regulations.

HAZ2 Employees may be exposed to hazardous materials during construction. Exposure of construction workers to contaminated materials can be minimized by implementing the measures required by federal, state, and local laws and regulations. As such, potential impacts associated with the excavation of contaminated materials would be less than significant.

HAZ3 Hazardous materials may be temporarily stored and used on the project site and waste generated during the construction and operation of the

project. All hazardous materials shall be handled and disposed in accordance with applicable regulations.

HAZ4 The soils may contain methane or other gases from previous oil well field development. Safety equipment, material, and assistance shall be provided to City personnel to properly inspect all phases of the work, including final inspection. Such equipment, material and assistance shall include, but not be limited to testing for the presence of explosive or toxic gases and oxygen deficiency in confined spaces, blowers, ventilators, first aid supplies and equipment, ladders, scaffolds, shoring, and personnel for standby assistance as required. Personal safety devices such as harnesses, lanyards, and self-contained breathing apparatus will be provided. When the Work requires specialized safety equipment, new sets of such equipment, training, and maintenance of such equipment shall be provided.

3.6.3 Findings

Mitigation measure HAZ5 has been merged into measure HAZ4, which has been re-worded from that stated in the EIR. As originally worded, HAZ5 would have related only to new structures intended for human entry. Such structures are not proposed. The City finds that measure HAZ4 as it is now stated is equivalent or more effective than measures HAZ4 and HAZ5 as they were stated in the EIR.

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effects from hazardous waste and materials as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts are found to be **not significant**.

3.6.4 References

Section 5.8 and Appendix G of the Draft EIR and the Final EIR discuss the project's hydrology and water quality impacts and mitigation measures.

3.7 Hydrology, Water Quality and Stormwater Runoff

This section discusses the significant or potentially significant hydrology, water quality and stormwater runoff impacts related to the construction and operation of the preferred project.

3.7.1 Description of Potential Effects

SURFACE WATER QUALITY

Unless mitigated, construction of the Project could affect surface water quality due to accidental spills, dewatering, construction maintenance and storage, equipment parking, spoil and debris stockpiling and miscellaneous nuisance water flows.

GROUNDWATER CONDITIONS

The proposed Project will be located within saturated subgrade soils and perched groundwater may be encountered during construction. Dewatering during construction will be minimized by using the boring construction method. The proposed Project is not expected to affect the severity, extent or movement of any existing groundwater contamination.

NO AQUIFER AFFECTED

Neither construction nor operation would affect a potable water source. The Ballona Aquifer is estimated to be 40 to 60 feet below the ground surface in the Project area and is estimated to vary in depth from 10 to 30 feet. The Silverado Aquifer, a main groundwater producing unit in the Santa Monica Sub-basin, is merged with the Ballona Aquifer within the Project vicinity. Activities less than about 40 feet below the ground surface will not affect these aquifers because they are separated from the surface by the Bellflower Aquiclude. Dewatering will not be required below the Bellflower Aquiclude.

3.7.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts:

WQ1 Runoff may occur from the project site during construction activities. Even if not otherwise required, a stormwater pollution prevention plan (SWPPP) shall be submitted for review and approval because of the highly sensitive habitat areas within the project. The SWPPP shall recommend interim and permanent improvements to existing drainage features to prevent uncontrolled runoff during construction and to accommodate any temporary increase in runoff associated with construction activities. Copies of said NPDES permit(s) and related SWPPP shall be available for inspection at the City and at the construction site prior to land disturbing activity.

WQ2 Dewatering discharge is expected to occur during the initial phase of pit construction, hydraulic isolation of the pits can be accomplished by the contractor by various methods of his choice, including interlocking sheet pile walls, soil cement walls constructed with Deep Mixing Methods, or slurry diaphragm walls. Water removed from the pits will be discharged to the storm drain system after proper treatment in accordance with local regulations. Solid particles will be removed by using sedimentation tanks and filtration. If petroleum contamination is encountered, free product, if any, will be skimmed off the surface and oil/water separators will be used

to remove the remaining contamination. Granular activated carbon could be used to remove any dissolved organic or other contaminants. Alternatively, discharged water will be shipped to authorized vendors for treatment and disposal.

3.7.3 Findings

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect on water resources as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts are found to be **not significant**.

3.7.4 References

Section 5.8 of the Draft EIR and the Final EIR discuss the project's hydrology and water quality impacts and mitigation measures.

3.8 Noise and Vibration

This section discusses the significant or potentially significant noise and vibration impacts related to the construction and operation of the preferred project.

3.8.1 Description of Potential Effects

Construction Noise and Vibration

Noise and Vibration from construction activities will have a short-term but significant impact to sensitive land uses such as residences along the project alignment unless mitigation measures are implemented. This is especially true of noise from construction activities associated with boring under the Marina Del Rey and Ballona Creek Channels which may extend beyond normal working hours.

Operational

No additional powered, noise-producing machinery, such as pumps, compressors, motors, etc., will be permanently installed as part of this Project. The physical elements of the Project would consist of underground sewer pipe, which under normal operation would not produce audible or measurable noise at nearby noise sensitive land uses. No significant noise or vibration is anticipated from operation of this project.

3.8.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts:

NOI 1 Construction activities shall be limited to the hours of 7:00 a.m. to 9:00 p.m. Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, and shall avoid Sundays and national holidays to the greatest extent feasible. Construction activities beyond the afore-stated limits shall only occur if allowed by the regulating agency (e.g., the Los Angeles Police Commission in the City of Los Angeles) and required to avoid greater environmental risk.

NOI 2 Heavy trucks associated with project construction shall be limited to major arterial streets, and away from residential roadways, to the extent practicable.

NOI 3 All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for such type of equipment.

NOI 4 All mobile or fixed noise-producing equipment used on the project, and that is regulated for noise output by a local, state, or federal agency, shall comply with such regulation while in the course of project activity.

NOI 5 Temporary soundwall barriers shall be erected for launch and receiving pits. Such soundwall barriers shall be of a sufficient height, length and configuration so as to provide substantial noise reduction and effectively block the line-of-sight between nearby noise-sensitive receivers and the work zone.

NOI 6 Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment where feasible.

NOI 7 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.

NOI 8 Construction site and haul-road speed limits shall be established and enforced during the construction period.

NOI 9 The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only.

NOI10 No project-related public address or music system shall be audible at any adjacent receptor.

NOI11 The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process to the owner shall be established prior to construction commencement that will allow for resolution of noise problems that cannot be immediately solved by the site supervisor.

NOI12 The contractor shall develop and implement a project noise control plan, which shall have been approved by the City.

VIB1 "Press-in" or drilling pile drives shall be utilized rather than impact or vibratory pile-drivers, where feasible.

3.8.3 Findings

Mitigation measure NOI 1 has been re-worded from that stated in the EIR to allow construction activity beyond normal working hours and on Sundays and national holidays if permitted to avoid greater environmental risk. For example, under some construction scenarios it may be necessary to install the sewer pipe under the Marina Del Rey and Ballona Creek Channels in a 24-hour, non-stop operation to avoid the risk of the drilled material settling in the bore or the carrier pipe becoming stuck. The City finds that the measure as it is now stated is equivalent or more effective than the measure stated in the EIR.

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect of project related noise and vibration as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. Even with these changes or alterations, the above potential impacts related to the Project are found to be **Potentially Significant**.

3.8.4 References

Section 5.10 and Appendix H of the Draft EIR and the Final EIR discuss the project's noise and vibration impacts and mitigation measures.

3.9 Public Facilities and Services

This section discusses the significant or potentially significant impacts to public facilities and services due to the construction and operation of the preferred project.

3.9.1 Description of Potential Effects

SHORT-TERM CONSTRUCTION IMPACTS

Construction activities for the Project could have short-term impacts on public facilities and services. The previously described impacts to circulation, traffic and transportation will impact access to public facilities and services and could interfere with scheduled recreational events such as beach volleyball tournaments. In addition, site-specific short-term adverse impacts to public facilities and services will occur during the construction period. Construction activities could affect: sightseeing from Via Marina (a scenic highway/drive); access to and use of Del Rey Lagoon Park; use of the bike path at Pacific Avenue bridge; and use of the Napoleon Street residential foot path.

Although there would be impacts of existing recreational activities and use of public recreational resources during Project construction, the construction activities and related adverse impacts are considered short term and not significant. No permanent substantial physical deterioration of recreational facilities or public recreational resources would occur or be accelerated. Therefore, no significant impacts to recreation are anticipated.

OPERATIONAL IMPACTS

The improved reliability of the sewer lines and the reduction in the potential for overflow into the adjacent waterways and the ocean would ensure the availability of existing recreational resources for residents and domestic and international tourists. A beneficial long-term impact on existing recreational resources is anticipated. There would be no long-term adverse impacts that require mitigation measures to the study areas affected.

3.9.2 Mitigation Measures

Although no significant impacts to recreation are anticipated, the following mitigation measures have been adopted and will minimize adverse short-term construction related impacts in the Project area.

REC1 In order to minimize competition between construction-related equipment and activities and Dockweiler State Beach users for parking space at Vista Del Mar and the resulting temporary impacts to recreation, special parking arrangements will be made for construction workers.

REC2 In order to minimize recreational access and use issues during the course of construction, additional consultation and coordination with key stakeholders, local residents, members of the general public and City/County planners will occur to balance the needs of the recreational users and construction related activities.

REC3 The City will coordinate with the sponsors of local and major regional, national and international beach events to schedule the events and/or construction activities to minimize conflicts.

REC4 The City will coordinate all construction scheduling and activities with the Los Angeles County Department of Public Works for the purpose of eliminating or reducing construction-related impacts.

3.9.3 Findings

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect on public facilities and services as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts related to the Project are found to be **not significant**.

3.9.4 References

Section 5.11 of the Draft EIR and the Final EIR discuss the project's public facilities and service impacts and mitigation measures.

3.10 Visual and Aesthetic Resources

This section discusses the significant or potentially significant visual and aesthetic resource impacts due to the construction and operation of the preferred project.

3.10.1 Description of Potential Effects

The proposed Project would cause a substantial degradation of existing visual character or quality of a site and its surroundings. The proposed Project could require the removal of one or more mature street trees, which contribute substantially to the value of the scenic highway/drive status of Via Marina. In addition, construction sites and activities would contrast significantly with the valued aesthetic image of the area as interpreted by existing features.

Construction activities and construction sites associated with the proposed Project would cause substantial, adverse effects on scenic vistas by partially obstructing recognized and valued views currently available from public areas (Via Marina, Marquesas Way, Via Dolce, Aubrey E. Austin Park and the North Jetty Promenade). The impact would be short-term but significant.

The proposed Project could cause substantial damage to scenic resources within view from a scenic highway. The scenic resources that could be damaged by the proposed Project are (1) mature street trees along Via Marina, which is designated a scenic highway by the County of Los Angeles, and (2) one mature tree at the intersection of Via Dolce and Marquesas Way. Removal of mature trees, unless replaced with mature trees of similar size, would be significant and long term.

The proposed Project could result in visual impacts inconsistent with applicable plans or policies. The Los Angeles County Local Coastal Program for Marina Del Rey designates Via Marina as a scenic drive, and the Scenic Highway Element of the County General Plan identifies Via Marina as a scenic highway. Construction activities associated with the Project will reduce access to and enjoyment of Via Marina by the public and adversely affect views from this road. The impact would be temporary.

3.10.2 Mitigation Measures

The following mitigation measures have been adopted and are expected to reduce the proposed Project's potential significant adverse impacts:

AES1 Mature street trees along Via Marina shall be protected in place.

AES2 Public access along Via Marina, Marquesas Way, Via Dolce, Aubrey E. Austin Park and the North Jetty Promenade shall be maintained.

AES3 The City shall consider landscaping public areas within affected neighborhoods where open space is currently degraded and unsightly.

AES4 The City shall consider screening from public view existing features that are incongruous with the character of their surroundings (such as the Venice Pumping Plant).

AES5 The City shall consider creating public access to currently unavailable scenic vistas (new beach access routes, paths, bikeways, public parking).

3.10.3 Findings

The City finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen the significant environmental effect on visual and aesthetic resources as identified in the Final EIR. These changes or alterations are within the responsibility of the City. However, portions of the project, such as the portion in Via Marina, are outside of the City's jurisdiction. To the extent that these changes or alterations are also within the responsibility and jurisdiction of another public agency, such changes can and should be adopted by such other agency. With these changes or alterations, the above potential impacts are found to be short term but **significant**.

3.10.4 References

Section 5.12 and Appendix I of the Draft EIR and the Final EIR discuss the project's visual/aesthetic impacts and mitigation measures.

3.11 Cumulative Effects

The City has considered the potential for significant or potentially significant cumulative impacts due to the construction and operation of the proposed Project. The City finds that operation of the proposed Project, as mitigated by the changes or alterations identified in the foregoing, will not have any cumulatively significant impact for the reasons stated in the EIR. Also for the reasons stated in the EIR, the City finds that construction activities related to the proposed Project will not have any cumulatively significant impact on:

- Biological Resources
- Circulation, Traffic and Transportation
- Cultural Resources
- Geology, Soils and Seismicity
- Hazardous Waste and Materials
- Hydrology, Water Quality / Stormwater Runoff
- Land Use Plans
- Noise and Vibration
- Public Facilities and Services
- Visual and Aesthetic Resources

Finally, the City finds that the proposed Project and other development projects in the general vicinity of the Project area may have the following cumulatively significant impacts if they are simultaneously under construction.

CONSTRUCTION AIR EMISSIONS

Fugitive dust and pollutant emissions generated during construction may result in substantial short-term increases in air pollutants, which would contribute to short-term cumulative air quality impacts.

PALEONTOLOGIC RESOURCES

Development of the Project, in combination with other projects in the region where a project site is underlain by the Palos Verdes Sand might lead to the progressive loss of fossil-bearing strata in these rock units that could be prospected for fossil remains and unrecorded fossil sites. The loss of these additional paleontologic resources is a potentially significant cumulative impact.

3.11.1 Mitigation Measures

There are no additional feasible and available mitigation measures that would reduce the proposed Project's potentially significant cumulative impacts on air quality or paleontologic resources.

3.11.2 Findings

The City finds that the proposed project has specific economic, legal, social, technological, or other benefits that outweigh the proposed project's unavoidable cumulative adverse environmental effects. Those benefits are identified in Section 5 of this document.

3.11.3 References

The project's cumulative impacts are discussed in each issue section of Chapter 5 of the Draft EIR, in Chapter 7 of the Draft EIR, and in the relevant appendices.

4.0 ALTERNATIVES CONSIDERED

In all, the City evaluated three alternative alignments and three alternative construction methods. Detailed descriptions of the alternatives are contained in the EIR. The City's reasons for not selecting the alternatives to the Preferred Alternative are described below. The cost estimates herein are order-of-magnitude estimates intended to provide a measure of comparative feasibility. A more precise cost estimate can't be made until a project is selected and designed.

4.1 No Project Alternative

Under this alternative, no new sewer force main would be constructed and the existing sewer system would continue to operate in its current configuration. The No Project alternative could result in potentially significant adverse effects to the environment due to the lack of conveyance capacity of the existing 48-inch sewer force main downstream of the Venice Pumping Plant and the current inability to perform regularly scheduled maintenance on this pipeline. If inflows to the Venice Pumping Plant exceed the capacity of the force main leaving the plant, an overflow of untreated wastewater into the Ballona Lagoon and other areas in the vicinity of the Venice Pumping Plant Force Main corridor could result, causing significant harm to the environment.

4.2 Cut and Cover Along Preferred Alignment

Although construction via cut and cover is normally the fastest way to construct a pipeline, this alternative was not selected because shallow groundwater in the area would necessitate extensive dewatering. The selected construction method, boring, greatly reduces the need for dewatering and therefore avoids the risks associated with dewatering (such as subsidence or altering the extent of any groundwater contamination). In addition, this alternative would have greater air quality, noise and vibration impacts to adjacent residents when compared with the selected project.

4.3 Pacific Avenue Alignment

This alignment is about 10,100 feet long. From the pumping plant on Hurricane Street, the alignment would proceed westerly in Hurricane Street to Pacific Avenue, then turn southeast and cross under the Marina Del Rey and Ballona Creek channels, and continue south along Pacific Avenue and Vista Del Mar to the junction structure in Vista Del Mar near Waterview Street. Three alternative methods of constructing the force main sewer along Pacific Avenue were evaluated: cut and cover, boring and mining.

Construction via cut and cover would take about 7 months and cost about $37 million. While this alternative would be the quickest and least expensive to construct it was not selected because, compared with the selected project, this alternative would have greater impacts to air quality, parking, circulation, risks arising from dewatering, greater risk due to proximity of gas wells and contaminated sites and potential noise and vibration impacts to adjacent residents.

Construction via boring would take about 15 months and cost about $47 million. This alternative was not selected because, compared with the selected project, this alternative would have greater impacts to parking, circulation, greater risk due to proximity of gas wells and contaminated sites.

Construction via mining would take about 28 months and cost about $68 million. Although this alternative is the environmental superior alternative, it was not selected because of its significantly greater cost ($68 million) and construction time (28 months).

4.4 Dockweiler Beach Alignment

This alignment is about 10,300 feet long. From the pumping plant on Hurricane Street, the alignment would proceed westerly to the existing 20-foot wide sewer easement in Venice Municipal Beach and Dockweiler State Beach, then turn southeast and cross under the Marina Del Rey and Ballona Creek channels, and continue south along the Dockweiler Beachfront to a point west of the junction structure in Vista Del Mar near Waterview Street. From this point, the line runs easterly to the junction structure under Vista Del Mar near Waterview Street. If the mined large-diameter tunnel construction method is used, the construction shaft and staging area could be on the Los Angeles Airport property (LAX) slightly further to the southeast. Two alternative methods of constructing the force main sewer along the beach were evaluated: boring and mining.

Construction via boring would take about 15 months and cost about $54 million. This alternative was not selected because, compared with the selected project, this alternative is more expensive, risks impacts to the rare and endangered California Least Tern and would have greater risk due to proximity of gas wells and contaminated sites.

Construction via mining would take about 27-28 months and cost about $65-68 million (depending on the construction method used for the connections at the north and south ends). This alternative was not selected because of its significantly greater cost and construction time.

4.5 Environmentally Superior Alternative

The environmentally superior alternative is to mine a large-diameter tunnel along the Pacific Avenue alignment from the LAX Dunes to Venice Pumping Plant (identified as mined tunnel alternative 4 in the DEIR). This alternative would impose the least number of impacts to environmental resources, and would significantly reduce construction related impacts such as traffic and parking congestion, noise and vibration. This alternative was not selected because of its significantly greater cost ($68 million) and construction time (28 months).

4.6 Other Alternatives

Combined alignments, such as an alignment along Dockweiler Beach north of the channel and along Pacific Avenue south of the channel, were also considered, but were not analyzed in detail, because they were not environmentally superior when considered in the whole and did not have any other significant benefit, such as substantially lower cost.

The environmental impacts of two combinations of construction method and alignment were not analyzed in detail. Mining a large-diameter tunnel along the eastern alignment was not considered, because it would be longer than the other alignments (and therefore require more time and money to construct) while not offering any advantages over the other alignments. Cut and cover along the beach was not considered because the method would result in a relatively shallow sewer, which could be vulnerable to damage from future coastal erosion processes.

5.0 STATEMENT OF OVERRIDING CONSIDERATIONS

The proposed Via Marina/Pacific Avenue cut and cover alternative would result in the following unavoidable significant adverse impacts after mitigation:

1. In spite of the application of mitigation measures, oxides of nitrogen (NO_X) produced during construction would exceed the standards established by the SCAQMD for significance.

2. Tunneling, needed to construct the sewer under water bodies, could damage or destroy archaeological or paleontologic resources.

3. Construction activities could cause noise impacts to sensitive receptors, such as residences, in the vicinity of construction sites.

4. Construction activities will have a short-term but significant adverse effect on visual and aesthetic resources.

The City finds that the proposed Project has specific economic, legal, social, technological, or other benefits that outweigh the proposed project's unavoidable adverse environmental effects. The project's benefits include:

1. The proposed Project will provide additional conveyance capacity from VPP needed to manage peak flows. The potential adverse public health and environmental consequences of overflows clearly outweigh the adverse impacts associated with construction and operation of the project.

2. The proposed Project will provide additional protection against the risk of system failure in a critical link in the city's wastewater conveyance system. The potential adverse consequences on potential public health and the environment of system failure clearly outweigh the adverse impacts associated with construction and operation of the project.

3. The proposed Project will allow the existing force main sewer to be bypassed for inspection, maintenance and repair.

4. The proposed Project will maintain the City's compliance with the National Pollution Discharge Elimination System, which requires that the City maintain its current sanitary sewer systems in order to prevent accidental discharges. Without the proposed Project, the existing sanitary sewer system cannot be adequately maintained without disrupting service to the public.

The City finds that the Project's unavoidable and potentially unavoidable adverse impacts are acceptable because they are outweighed by the project's benefits. The City reached this decision after having done all of the following:

1. adopted all feasible mitigation measures,

2. rejected other project alternatives with significant impacts,

3. recognized all significant and potentially significant impacts associated with the preferred alternative, and

4. balanced the benefits of the project against its significant and potentially significant impacts after mitigation.

MITIGATION MONITORING PROGRAM

FOR

Venice Pumping Plant Dual Force Main

W.O. SZC11631 (formerly W.O. E1700500)

SCH #2003031001

Prepared By

CITY OF LOS ANGELES
BUREAU OF ENGINEERING

May 2008

Introduction

The California Environmental Quality Act (CEQA) requires public agencies to adopt a reporting or monitoring program for the changes to the project that have been adopted to mitigate or avoid significant effects on the environment. The program must be adopted by the public agency at the time findings are made regarding the project (Public Resources Code Section 21081.6). The State CEQA Guidelines allow public agencies to choose whether its program will monitor mitigation, report on mitigation, or both (California Code of Regulations Title 14, Chapter 3, Section 15097(c)). This mitigation monitoring program contains the elements required by CEQA for the Venice Pumping Plant Dual Force Main Sewer Project.

Project Description

The Venice Pumping Plant Dual Force Main Project for which this mitigation monitoring program has been developed consists of the design, construction and operation of a new force main sewer, 54 inches in diameter and extending about two miles from the existing VPP at 140 Hurricane Street in the community of Venice to a junction structure on the Coastal Interceptor Sewer in the community of Playa Del Rey on Vista Del Mar near Waterview Street. The new force main sewer would be used in tandem with the existing force main sewer for the purpose of fulfilling the City's objectives, purposes and needs for sewage conveyance capacity, pipeline redundancy, and maintenance.

From the existing VPP on Hurricane Street, the alignment would proceed east under the Grand Canal and along Marquesas Way, then southeasterly on Via Marina and portions of the county parking lot, then under the Marina Del Rey entrance and Ballona Creek channels to a point on the south side of Ballona Creek at Pacific Avenue. From there, the alignment continues south along Pacific Avenue and Vista Del Mar to the connection in Vista Del Mar near Waterview Street.

Construction would be by a combination of boring and cut-and-cover construction methods. Surface construction activities (construction management offices, materials staging, boring, etc.) would occur on or near the following sites:

- Venice Pumping Plant (140 Hurricane Street) and vicinity, which may include Hurricane Street between Canal Court and Grand Canal, the city-owned lots at 139 Hurricane Street and the county-owned lot at 3821 South Via Dolce.
- The intersection of Marquesas Way and Via Dolce.
- The intersection of Marquesas Way and Via Marina.
- Via Marina north of Tahiti Way.
- Via Marina north of Bora Bora Way.
- Via Marina about 300 feet north of the entrance to Los Angeles County Marina del Rey Parking Lot 13 (4601 Via Marina).

- The south end of Los Angeles County Marina del Rey Parking Lot 13 (4601 Via Marina).
- Pacific Avenue at 62nd Avenue and vicinity, which may include adjacent portions of 62nd Avenue, Los Angeles County 62nd Avenue Parking Lot, the access road along the south side of Ballona Creek channel, and 650 E 62nd Avenue.
- Pacific Avenue south of 65th Avenue.
- Pacific Avenue near Argonaut Street.
- Pacific Avenue about 50 feet south of Convoy Street.
- Vista Del Mar at Montreal Street.
- Vista Del Mar at Sunridge Street.
- Cut and cover in Vista Del Mar from Sunridge Street to about 150 south of Waterview Street. Construction activities may include adjacent portions of Dockweiler Beach, and minor portions of the "LAX Dunes" property (such as the area recently used for the North Outfall Sewer rehabilitation project).

Field offices for construction management and staging of equipment and materials may also occur at nearby city properties such as 311 Thatcher Avenue ("Thatcher Yard") and 3507 Via Dolce in addition to the foregoing areas.

Unless otherwise stated, the project will be designed, constructed and operated following all applicable laws, regulations, ordinances and formally adopted City standards (e.g., *Los Angeles Municipal Code* and Bureau of Engineering *Standard Plans*). Also, the analysis in this document assumes that construction will follow the uniform practices established by the Southern California Chapter of the American Public Works Association (e.g., *Standard Specifications for Public Works Construction* and the *Work Area Traffic Control Handbook*) as specifically adapted by the City of Los Angeles (e.g., The City of Los Angeles Department of Public Works *Additions and Amendments to the Standard Specifications For Public Works Construction* (AKA "The Brown Book," formerly Standard Plan S-610)).

Mitigation Measures

The mitigation measures described in the following pages are taken from the Draft Environmental Impact Report (December 20, 2005) and related documents. The measures listed according to the stages of the project at which each mitigation measure must be implemented: design, construction, and operation.

Within each project phase, the following are identified for each mitigation measure:

(1) An "identifier" providing a nexus between the listed mitigation measure and the source document. The source document should be consulted whenever there is any question regarding the intent or implementation of the mitigation measure. In this case the source document is the Draft Environmental Impact Report dated December 20, 2005.

(2) description of the mitigation measure,
(3) the party who is responsible for the necessary implementing actions,
(4) the necessary implementing vehicle,
(5) the party who is responsible for verifying that the necessary implementing action is taken, and
(6) the primary record documenting the necessary implementing action.

The mechanisms for verifying that mitigation measures have been implemented include design drawings, construction documents intended for use by construction contractors and construction managers, field inspections, field reports, and other periodic or special reports. All records pertaining to this mitigation program will be maintained and made available for inspection by the public in accordance with the City's records management systems and policies.

DESIGN PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
Air Quality					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications
Biological Resources					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications
Circulation, Traffic and Parking					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications
Cultural and Paleontological Resources					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications
Geology, Soils and Seismicity					
GEO 1	Project improvements would be subject to earthquake ground shaking. The components of the proposed project will be designed and constructed to the seismic design requirements for ground shaking specified in the UBC for Seismic Zone 4 at a minimum.	Project Engineer	Plans & Specifications	Project Manager	Plans & Specifications
GEO 2	Liquefaction and differential seismic settlement may occur on the project. Design and construction of the proposed project will include appropriate measures, such as flexible connections that can accommodate differential settlement, compaction grouting to densify the soils, or structural anchors to secure the pipeline.	Project Engineer	Plans & Specifications	Project Manager	Plans & Specifications
GEO 4	Methane gas may be detected along the project alignments. Design and construction of the proposed project will include active or passive mitigation systems for methane gas hazards, if necessary.	Project Engineer	Plans & Specifications	Project Manager	Plans & Specifications
Hazards and Hazardous Materials					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications
Hydrology and Water Quality					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications

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DESIGN PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
Noise and Vibration					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications
Recreational Resources and Facilities					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications
Aesthetics					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications

CONSTRUCTION PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
Air Quality					
AQ1	To minimize NOx emissions, strategize and plan ahead to minimize the transporting of construction equipment and excessive material to and from work area.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ2	To minimize NOx emissions, optimize construction crew size and select equipment to reduce any unnecessary emissions.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ3	To minimize NOx emissions, adjust the electronic timing on the construction equipment when feasible.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ4	To minimize NOx emissions, use newer construction equipment such as equipment meeting Tier 2 emission standards when feasible.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ5	To minimize NOx emissions, minimize idling emissions from construction equipment and haul trucks by turning them off when not in use or during potential long delays (i.e., over 5 minutes).	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ6	To minimize NOx emissions, optimize the muck removal schedule	Constructor	Project Plans &	Construction	Project

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CONSTRUCTION PHASE

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	to reduce emissions from haul trucks.		Specifications	Inspector	Acceptance or Closeout Report
AQ7	To minimize NOx emissions, use alternative fuel such as biodiesel, liquid natural gas, and propane when feasible.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ8	To minimize fugitive dust emissions, disturbed land and open storage piles that will be left inactive for several days, shall be stabilized by one, or a combination, of the following methods: (a) applying a chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of 6 months, (b) covering, or (c) watering three times per day.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ9	Soil exposed by construction activities shall be revegetated or otherwise covered so as to prevent the generation of wind-borne dust as soon as possible.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ10	To minimize fugitive dust emissions, all active unpaved demolition and construction areas shall be wetted at least three times daily during excavation and construction. The construction area shall be sufficiently dampened to control dust caused by construction and hauling and at all times provide reasonable control of dust by wind.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ11	To minimize fugitive dust emissions, during periods of high winds (i.e., greater than 15 mph) either (a) cease all clearing, earth moving and excavation activities or (b) apply water to soil not more than 15 minutes prior to moving the soil.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AQ12	To minimize fugitive dust emissions, all truck loads of imported or exported soil or debris shall be either (a) securely covered or (b) comply with vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads and be sufficiently watered to prevent excessive amount of dust.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
Biological Resources					
BIO 2	To protect foraging of the least tern when tunneling activities are to occur during the least tern nesting season (April 1 through August 31), a water quality specialist or biological monitor shall conduct surveys at tunneling locations a minimum of once daily to ensure that tunneling does not increase water turbidity. If any turbidity from the tunneling activities is discovered in least tern foraging areas, the tunneling activities shall cease until corrective measures are taken to prevent tunneling activities from causing increased turbidity.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report

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CONSTRUCTION PHASE

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BIO 3	Environmentally sensitive habitat areas shall be protected, and where feasible, enhanced. If any environmentally sensitive habitat area is disturbed, the area shall be restored to its previous condition in accordance with the applicable Land Use Plan and Local Coastal Program. Marine resources shall be maintained, enhanced, and where feasible, restored. If any marine resources are disturbed, the resources shall be restored to its previous condition in accordance with the applicable Land Use Plan and Local Coastal Program.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
Circulation, Traffic and Parking					
TRA 1	To coordinate with the city to ensure adequate traffic signals and controls are in place prior to and during times of construction, a construction traffic management plan shall be prepared for each construction site and submitted to the City for review and approval prior to the start of any construction work.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
TRA 2	To adequately control traffic to ensure compliance with all local and state safety standards and specifications, a site-specific construction worksite traffic control plan shall be prepared for each construction site and submitted to the City for review and approval prior to the start of any construction work. This plan shall include such elements as the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours, protective devices and traffic controls (such as barricades, cones, flagmen, lights, warning beacons, temporary traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas. Coordinate with emergency service providers (police, fire, ambulance and paramedic services) to provide advance notice of any lane closures, construction hours and changes to local access and to identify alternative routes where appropriate.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
TRA 3	To reduce traffic congestion, fully utilize available street space to minimize lane reductions on affected streets, including elimination of onstreet parking where necessary. Implement left-turn restrictions as appropriate on re-striped street segments to facilitate the movement of through traffic. Only eliminate travel lanes when	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report

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CONSTRUCTION PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
	absolutely necessary.				
TRA 4	To protect pedestrian and recreational traffic, provide signage indicating alternative pedestrian and bicycle access routes where existing facilities would be affected.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
TRA 5	To ensure ingress/egress to all properties adjacent to the project and surrounding areas, provide advance notice to any affected residents, businesses and property owners in the vicinity of each construction site and, where existing property access will be reduced, identify alternative means of access.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
TRA 6	To avoid impacts to public transportation, coordinate with pubic transit providers (MTA, LADOT Commuter Express, Culver City Bus) to provide advance notice of any lane closures, construction hours and, where necessary, to identify sites for temporary bus stops within a reasonable walking distance of any displaced bus stops.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
Cultural and Paleontological Resources					
CR 1	To avoid impacts to areas where cultural resources are known to exist, an archaeologist qualified to recognize and assess both prehistoric and historical resources shall monitor all excavation.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
CR 2	To avoid impacts to areas where cultural resources are known to exist, when avoidance cannot be achieved, alternate measures such as surface collection and/or subsurface data recovery of significant sites must be implemented.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
CR 3	In the event of the discovery and subsequent recovery of fossil remains, the engineer shall halt construction temporarily while remains are analyzed prior to resuming construction.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
CR 4	An archaeologist qualified to recognize and assess both prehistoric and historical resources shall monitor all excavation in the vicinity of the CA-LAN-66 site located in Vista Del Mar.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
CR 5	If new discovery is encountered Develop a contingency plan for addressing unanticipated new discoveries of cultural resources in the project area, evaluate and report any findings.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
CR 6	If significant cultural resources are found during construction, those significant cultural resources found shall be recovered from the project site, curated by an archaeologist recommended by the city and offered to an area museum whose collection is available for the viewing by the public.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report

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PAL 1	Prior to construction, the services of a qualified vertebrate paleontologist approved by the City of Los Angeles and Los Angeles County Museum of Natural History will be retained to implement the mitigation program during earth-moving activities at the project site.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
PAL 2	The paleontologist will develop a formal agreement with a recognized museum repository, such as the LACMVP or LACMIP, regarding the final disposition and permanent storage and maintenance of any fossil remains and the archiving of associated specimen data and corresponding geologic and geographic site data that might be recovered as a result of the mitigation program, and the level of treatment (preparation, identification, curation, cataloguing) of the remains that would be required before the entire mitigation program fossil collection would be accepted by the repository for storage.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
PAL 3	The paleontologist or monitor will coordinate with the appropriate construction contractor personnel to provide information regarding lead agency requirements for the protection of paleontologic resources. Contractor personnel also will be briefed on procedures to be followed in the event that a fossil site or remains are encountered by earth-moving activities, particularly when the monitor is not on site. The briefing will be presented to new contractor personnel as necessary. Names and telephone numbers of the monitor and other appropriate mitigation program personnel will be provided to the appropriate contractor personnel.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
PAL 4	Earth-moving activities will be monitored by the monitor only in those areas of the project site where these activities will disturb previously undisturbed strata. Monitoring will be conducted on a full-time basis in areas underlain by the Palos Verdes Sand and, once the activities have reached a depth 5 feet below grade, on a full-time basis in areas underlain by the coastal deposits and on a half-time basis in areas underlain by the dune sand. If fossil remains are encountered by these activities, monitoring will be increased to full time, if appropriate, at least in the vicinity of the fossil site where the area is underlain by the fossil-bearing rock unit. If no fossil remains are found once 50 percent of earth-moving activities have been completed in an area underlain by a particular rock unit, with City of Los Angeles approval, monitoring can be reduced or	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report

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CONSTRUCTION PHASE

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	suspended in that area.				
PAL 5	All fossil specimens recovered from the project site as a result of the mitigation program, including those recovered as the result of processing fossiliferous rock samples, will be treated (prepared, identified, curated, catalogued) in accordance with designated museum repository requirements. Small rock samples from the Palos Verdes Sand, dune sand, and coastal deposits will be submitted to commercial laboratories for microfossil, pollen, or radiometric (carbon-14) dating analysis.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
PAL 6	The discovery of paleontologic resources may be present in specific project areas where grading and other excavation activities are to occur Monitoring will consist of visually inspecting debris piles and freshly exposed strata for larger fossil remains, and periodically dry test screening sediment, rock, and debris for smaller fossil remains. As soon as practicable, the monitor will recover all vertebrate fossil specimens, a representative sample of invertebrate or plant fossils, or any fossiliferous rock sample that can be recovered easily. If recovery of a large or unusually productive fossil occurrence is warranted, earth-moving activities will be diverted temporarily around the fossil site and a recovery crew will be mobilized as necessary to remove the occurrence as quickly as possible. If not on site when a fossil occurrence is uncovered by these activities, the activities will be diverted temporarily around the fossil site and the monitor called to the site to evaluate and, if warranted, recover the occurrence. If the fossil site is determined too unproductive or the fossil remains not worthy of recovery, no further action will be taken to preserve the fossil site or remains, and earth-moving activities will be allowed to commence.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
Geology, Soils and Seismicity					
GEO 2	Liquefaction and differential seismic settlement may occur on the project. Design and construction of the proposed project will include appropriate measures.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
GEO 3	Subsidence may occur to the project area. Design and construction of the proposed project will include appropriate measures, such as a watertight excavation support system to minimize groundwater pumping or construction the pipeline in a "wet" excavation.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
GEO 4	Methane gas may be detected along the project alignments. Design	Constructor	Project Plans &	Construction	Project

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CONSTRUCTION PHASE

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	and construction of the proposed project will include active or passive mitigation systems for methane gas hazards, if necessary.		Specifications	Inspector	Acceptance or Closeout Report
Hazards and Hazardous Materials					
HAZ 1	Abandoned wells and other subsurface structures may be encountered during construction. Any wells that must be re-abandoned, will be re-abandoned in accordance with applicable regulations.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
HAZ 2	Employees may be exposed to hazardous materials during construction. Exposure of construction workers to contaminated materials can be minimized by implementing the measures required by federal, state, and local laws and regulations. As such, potential impacts associated with the excavation of contaminated materials would be less than significant.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
HAZ 3	Hazardous materials may be temporarily stored and used on the project site and waste generated during the construction and operation of the project. All hazardous materials shall be handled and disposed in accordance with applicable regulations.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
HAZ 4	The soils may contain methane or other gases from previous oil well field development. Safety equipment, material, and assistance shall be provided to City personnel to properly inspect all phases of the work, including final inspection. Such equipment, material and assistance shall include, but not be limited to testing for the presence of explosive or toxic gases and oxygen deficiency in confined spaces, blowers, ventilators, first aid supplies and equipment, ladders, scaffolds, shoring, and personnel for standby assistance as required. Personal safety devices such as harnesses, lanyards, and self-contained breathing apparatus will be provided. When the Work requires specialized safety equipment, new sets of such equipment, training, and maintenance of such equipment shall be provided.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
HAZ 5	To ensure public safety where methane may be present along the project alignments, the City of Los Angeles Building Code requires that methane mitigation be implemented when construction occurs at these sites to ensure public safety. These measures include the installation of membrane barriers and vent piping as well as trench dams and electrical seal-offs for each of these properties.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
Hydrology and Water Quality					

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WQ 1	Runoff may occur from the project site during construction activities. Even if not otherwise required, a stormwater pollution prevention plan (SWPPP) shall be submitted for review and approval because of the highly sensitive habitat areas within the project. The SWPPP shall recommend interim and permanent improvements to existing drainage features to prevent uncontrolled runoff during construction and to accommodate any temporary increase in runoff associated with construction activities. Copies of said NPDES permit(s) and related SWPPP shall be available for inspection at the City and at the construction site prior to land disturbing activity.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
WQ 2	Dewatering discharge is expected to occur during the initial phase of pit construction, hydraulic isolation of the pits can be accomplished by the contractor by various methods of his choice, including interlocking sheet pile walls, soil cement walls constructed with Deep Mixing Methods, or slurry diaphragm walls. Water removed from the pits will be discharged to the storm drain system after proper treatment in accordance with local regulations. Solid particles will be removed by using sedimentation tanks and filtration. If petroleum contamination is encountered, free product, if any, will be skimmed off the surface and oil/water separators will be used to remove the remaining contamination. Granular activated carbon could be used to remove any dissolved organic or other contaminants. Alternatively, discharged water will be shipped to authorized vendors for treatment and disposal.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
Noise and Vibration					
NOI 1	Construction activities shall be limited to the hours of 7:00 a.m. to 9:00 p.m. Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, and shall avoid Sundays and national holidays to the greatest extent feasible. Construction activities beyond the afore-stated limits shall only occur if allowed by the regulating agency (e.g., the Los Angeles Police Commission in the City of Los Angeles) and required to avoid greater environmental risk.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 2	Heavy trucks associated with project construction shall be limited to major arterial streets, and away from residential roadways, to the extent practicable.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 3	All noise-producing project equipment and vehicles using internal	Constructor	Project Plans &	Construction	Project

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	combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for such type of equipment.		Specifications	Inspector	Acceptance or Closeout Report
NOI 4	All mobile or fixed noise-producing equipment used on the project, and that is regulated for noise output by a local, state, or federal agency, shall comply with such regulation while in the course of project activity.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 5	Temporary soundwall barriers shall be erected for launch and receiving pits. Such soundwall barriers shall be of a sufficient height, length and configuration so as to provide substantial noise reduction and effectively block the line-of-sight between nearby noise-sensitive receivers and the work zone	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 6	Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment where feasible.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 7	Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 8	Construction site and haul-road speed limits shall be established and enforced during the construction period.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 9	The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 10	No project-related public address or music system shall be audible at any adjacent receptor.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 11	The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process to the owner shall be established prior to construction commencement that will allow for resolution of noise problems that cannot be immediately solved by the site supervisor.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
NOI 12	The contractor shall develop and implement a project noise control	Constructor	Project Plans &	Construction	Project

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	plan, which shall have been approved by the city.		Specifications	Inspector	Acceptance or Closeout Report
VIB 1	"Press-in" or drilling pile drives shall be utilized rather than impact or vibratory pile-drivers, if feasible.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
Recreational Resources and Facilities					
REC1	In order to minimize competition between construction-related equipment and activities and Dockweiler State Beach users for parking space at Vista Del Mar and the resulting temporary impacts to recreation, special parking arrangements will be made for construction workers.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
REC2	In order to minimize recreational access and use issues during the course of construction, additional consultation and coordination with key stakeholders, local residents, members of the general public and City/County planners will occur to balance the needs of the recreational users and construction related activities.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
REC3	The City will coordinate with the sponsors of local and major regional, national and international beach events to schedule the events and/or construction activities to minimize conflicts.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
REC4	The City will coordinate all construction scheduling and activities with the Los Angeles County Department of Public Works for the purpose of eliminating or reducing construction-related impacts.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
Aesthetics					
AES1	Mature street trees along Via Marina shall be protected in place.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AES2	Public access along Via Marina, Marquesas Way, Via Dolce, Aubrey E. Austin Park and the North Jetty Promenade shall be maintained.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
AES3	The city shall consider landscaping public areas within affected neighborhoods where open space is currently degraded and unsightly.				
AES4	The city shall consider screening from public view existing features that are incongruous with the character of their surroundings (such as the Venice Pumping Plant).				
AES5	The city shall consider creating public access to currently				

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Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
	unavailable scenic vistas (new beach access routes, paths, bikeways, public parking).				

CCC = California Coastal Commission; DFG = California Dept. of Fish and Game; LADOT = City of Los Angeles Department of Transportation; LARWQCB = California Regional Water Quality Control Board Los Angeles Region; PW-Eng = Dept. of Public Works Bureau of Engineering ; PW-San = Dept. of Public Works Bureau of Sanitation; RAP-Op.s = Dept. of Recreation & Parks Operations; SCAQMD = South Coast Air Quality Management District;

OPERATION PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
	There are no mitigation measures to be implemented during operation.				

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