# Vista Grande Drainage Basin Improvement Project

# California Environmental Quality Act Findings: Findings of Fact, Evaluation of Mitigation Measures and Alternatives, and Statement of Overriding Considerations

# North San Mateo County Sanitation District

The North San Mateo County Sanitation District ("the District") a subsidiary of City of Daly City ("Daly City"), as the lead agency, and the National Park Service ("NPS") as the federal lead agency, prepared a joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS for the Vista Grande Drainage Basin Improvement Project ("Project"). The EIR/EIS was prepared in accordance with the California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA") and consists of the Draft EIR/EIS and the Final EIR/EIS. The EIR/EIS analyzes the significant effects of the Project on the environment.

The District makes and adopts the following findings of fact and decisions regarding mitigation measures and alternatives, and the statement of overriding considerations, based on substantial evidence in the whole record of this proceeding and under in accordance with CEQA,(Pub. Resources Code, § 21000 et seq.) and Guidelines for Implementation of CEQA ("CEQA Guidelines") (14 California Cal. Code Regs. § 15000 et seq.) Because these findings are based on the CEQA analysis of the Project, most references to the joint EIR/EIS simply refer to the Draft or Final EIR. The NPS is separately responsible for making a decision on its federal actions based on the EIS and the entire record compiled during the joint CEQA and NEPA evaluation process.

This document is organized as follows:

**Section I** provides a description of the Project proposed for adoption, the environmental review process for the Project, the approval actions to be taken, and the location of records;

**Section II** identifies the impacts found not to be significant that do not require mitigation;

**Section III** identifies potentially significant impacts that can be avoided or reduced to less-than-significant levels through mitigation and describes the disposition of the mitigation measures;

**Section IV** identifies significant impacts that cannot be avoided or reduced to less-than significant levels and describes any applicable mitigation measures as well as the disposition of the mitigation measures;

**Section V** evaluates the different Project alternatives and the economic, legal, social, technological, and other considerations that support approval of the Project and the rejection of the alternatives, or elements thereof, analyzed; and

**Section VI** presents a statement of overriding considerations setting forth specific reasons in support of the District's actions and its rejection of the alternatives not incorporated into the Project.

The Mitigation Monitoring and Reporting Program ("MMRP") for the mitigation measures that have been proposed for adoption is attached to these findings as **Attachment A**. The MMRP is required by Public Resources Code Section 21081.6 and CEQA Guidelines Section 15091. Attachment A provides a table setting forth each mitigation measure listed in the Final EIR for the proposed Project that is required to reduce or avoid a significant adverse impact. Attachment A also specifies the agency responsible for implementation of each measure and establishes monitoring actions and a monitoring schedule. The full text of the mitigation measures is set forth in Attachment A.

These findings are based upon substantial evidence in the entire record before the District. The references set forth in these findings below to certain pages or sections of the Draft EIR or the Response to Comments document ("RTC") in the Final EIR are for ease of reference and are not intended to provide an exhaustive list of the evidence relied upon for these findings.

# I. Approval of the Project

## A. Project Description

By this action, the District adopts and implements the Project identified as the Vista Grande Drainage Basin Improvement Project, to address storm-related flooding in the Vista Grande Drainage Basin (Basin) while providing the additional benefit of augmenting the water level of Lake Merced. The Vista Grande storm drain system drains the northwestern portion of Daly City and an unincorporated portion of San Mateo County – areas originally within the watershed of Lake Merced. In the 1890s, the Vista Grande Canal and Tunnel were built to divert stormwater away from the lake to an outlet at the Pacific Ocean. The Ocean Outlet and a portion of the Tunnel are located within Fowrt Funston, part of the Golden Gate National Recreation Area ("GGNRA"), which is operated under the authority of the NPS. The existing Canal and Tunnel do not have adequate hydraulic capacity to convey peak storm flows, and this periodically causes backup of Tunnel flows into the Canal and flooding during peak storm events in adjacent low-lying residential areas and along John Muir Drive. The proposed Project would consist of improvements within the Vista Grande Basin storm drain system upstream of the Vista Grande Canal; partial replacement of the existing Canal to incorporate a gross solid screening device, an approximately 2.6-acre constructed treatment wetland, and diversion and discharge structures to route some stormwater (and authorized non-stormwater) flows from the Canal to Lake Merced and to allow lake water to be used for summer treatment wetland maintenance; modification of the existing effluent gravity pipeline so that it may be used year round to convey treated effluent from the nearby Wastewater Treatment Plant owned and operated by the District to the existing outlet and diffuser by gravity, and abandoning the force main pipeline; modification of the existing lake overflow structure to include an adjustable weir and siphon that allows water from the lake to flow into the Canal and Vista Grande Tunnel; replacement of the existing Tunnel to expand its hydraulic capacity and extend its operating lifetime and replacement of the Lake Merced Portal to the Tunnel; and replacement of the existing Ocean Outlet structure and a portion of the existing 33-inch submarine outfall pipeline that crosses the beach at Fort Funston. Operational components of the Project would include management of water surface elevations in Lake Merced and a Lake Management Plan that would include water quality best management

practices, including upstream improvements in the Basin and additional actions, the implementation of which may be triggered during post-Project monitoring. In addition, the Project includes NPS execution of a special use permit for construction activities within GGNRA lands and the expansion of the right-of-way ("ROW") to accommodate the replacement Ocean Outlet structure.

## B. Project Objectives

Daly City developed the Project to address the following objectives:

- Improve stormwater drainage of the lower Vista Grande Basin to accommodate peak flows generated by the 25-year design storm;
- Provide a sustainable source of stormwater, establish a target maximum water surface elevation, and implement a Lake Management Plan for management of Lake Merced water quality, groundwater, and surface water elevation;
- Improve recreational access and reduce litter transfer and deposition along the beach below Fort Funston; and
- Maximize use of existing ROWs, easements, and infrastructure to minimize construction-related costs, habitat disturbance, and disruption to recreational users.

## C. Environmental Review

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the City of Daly City, as lead agency, prepared a Notice of Preparation ("NOP") to prepare a joint EIR and EIS for the Project in cooperation with the NPS. The NOP was circulated to local, state, and federal agencies and to other interested parties on February 28, 2013, initiating a public scoping period that extended through June 7, 2013. The NOP provided a general description of the proposed Project, locations, and objectives, and included a preliminary list of the potential environmental impacts related to the following resource topics: aesthetics; air quality; biological resources; cultural and archaeological resources; greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; land use; noise and vibration; public services and utilities; recreation; socioeconomics and environmental justice; soils, seismicity, and geologic resources; and transportation and traffic.

Pursuant to CEQA Guidelines Section 15083, the City of Daly City held one public scoping meeting on March 28, 2013 at the Doelger Senior Center Café/Kitchen at Westlake Park in Daly City, CA. The purpose of the meeting was to present the proposed Project to the public and receive public input regarding the proposed scope of the EIR analysis. Attendees were provided an opportunity to voice comments or concerns regarding potential effects of the Project.

Three members of the public attended the scoping meeting. In addition to comments received from attendees at the scoping meeting, which were summarized in notes taken by meeting organizers, eight comment letters on the NOP were received via mail, e-mail, or fax. One of the comment letters also attached two prior letters regarding prior alternatives analysis and

preliminary project design-related documents published by the City of Daly City and City and County of San Francisco about the proposed Project; to the extent applicable, these also were treated as scoping comments for the EIR. The comments addressed concerns regarding project description, required permits, aesthetics, biological resources, cultural resources, geology and soils, greenhouse gas emissions and climate change, hazards and hazardous materials and public health, hydrology and water quality, consistency with local plans and policies, odors, recreational impacts, transportation, and cumulative impacts.

Daly City then prepared the Draft EIR, which describes the Project and the environmental setting, identifies potential impacts, presents mitigation measures for impacts found to be significant or potentially significant, and evaluates three alternatives to the Project, including a "No Project" alternative. The EIR also considers the cumulative impact of the Project and alternatives in combination with other past, present, and future projects with potential for impacts on the same resources.

Each environmental issue presented in the Draft EIR is analyzed with respect to significance criteria that are based on CEQA Guidelines Appendix G, with some modifications to ensure that anticipated potential effects, such as interference with local utility corridors, would be addressed.

The Draft EIR was circulated to local, state, and federal agencies and to interested organizations and individuals for review and comment on April 28, 2016 for a 60-day public review period that closed on July 1, 2016. Daly City made the Draft EIR available for download its Project website, the address for which was included in all public notices. Paper copies of the Draft EIR were made available for public review at the following locations: (1) the Daly City Office of the City Clerk, 333 90$^{th}$ Street, Daly City, California; and (2) the Westlake Branch of the Daly City Public Library, 275 Southgate Avenue, Daly City, California. Daly City also distributed notices of availability of the Draft EIR on April 28, 2016; issued a news release on April 29, 2016; and posted notices at locations within the Project area on May 2, 2016.

During the 60-day public review period, Daly City conducted a public meeting to provide an opportunity for the public and regulatory agencies to learn about the project and be informed about how to submit comments on the adequacy and accuracy of the Draft EIR. The public meeting was held on May 26, 2016 at City Council Chambers, 333 90th Street, Daly City. One member of the public attended the public meeting, but no comments addressing the adequacy of the Draft EIR content were raised at the meeting.

During the Draft EIR public review period, Daly City received seven comment letters. Four agencies provided comments: the U.S. Environmental Protection Agency (USEPA), the California State Lands Commission, the California Department of Transportation (Caltrans), and the San Francisco Public Utilities Commission (SFPUC). Three organizations and private entities also commented: California Trout, Golden Gate Audubon Society, and the Olympic Club.

The Final EIR, published on September 8, 2017, included copies of all of the comments received on the Draft EIR as well as individual responses to those comments. The Final EIR provided additional, updated information and clarification on issues raised by commenters, as well as the consultant and the lead and responsible agencies. The District reviewed and considered the Final

EIR, which includes the Draft EIR and the RTC document. In certifying the Final EIR, Daly City determined that the Final EIR does not add significant new information to the Draft EIR that would require recirculation of the EIR under CEQA Guidelines Section 15088.5 because the Final EIR contains no information revealing (1) a new significant environmental impact that would result from the Project or from a new mitigation measure proposed to be implemented, (2) a substantial increase in the severity of a previously identified environmental impact, (3) a feasible project alternative or mitigation measure considerably different from others previously analyzed that would clearly lessen the environmental impacts of the Project, but that was rejected by the Project's proponents, or (4) that the Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. The District concurs in that determination.

The Final EIR fully analyzed the Project proposed for approval herein. No new impacts have been identified that have not been analyzed in the Final EIR.

# D. Approval Actions

## 1. North San Mateo County Sanitation District Actions

- Certify the Final EIR
- Adopt these CEQA findings, Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Program
- Approve the Vista Grande Drainage Basin Improvement Project

## 2. City and County of San Francisco

The City and County of San Francisco is a Responsible Agency for the Project and separately will consider taking the following actions and approvals to implement the aspects of the Project under San Francisco jurisdiction.

**San Francisco Board of Supervisors:**

- Adopt CEQA findings, Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Program
- Convey ownership of Vista Grande Tunnel and easement to Daly City

**San Francisco Public Utilities Commission:**

- Approve the Lake Management Plan, including selecting a target water surface elevation at which to manage the lake
- Approve necessary conveyances (e.g., easements, leases, and land transfers)

Additionally, the SFPUC Wastewater Enterprise, Department of Public Works, Department of Parking and Traffic, Recreation and Parks Department, and the Municipal Transportation Agency MUNI Street Operations Division would rely on the certified EIR for issuance of any discretionary permits or approvals for the Project.

### 3. State Agencies

Implementation of the Project and mitigation measures will involve consultation with/required approvals by state regulatory agencies, including:

- California Coastal Commission
- State Water Resources Control Board
- San Francisco Bay Regional Water Quality Control Board
- California Department of Fish and Wildlife
- California State Lands Commission
- California Department of Transportation
- State Historic Preservation Officer

## E. Record of Proceedings

For purposes of CEQA and these Findings, the Record of Proceedings consists of the following documents, at a minimum:

- The NOP and all other public notices issued by Daly City in conjunction with the proposed Project;
- The Draft EIR and Final EIR, including appendices and technical studies included or referenced in the Draft EIR and Final EIR;
- All comments submitted by agencies or members of the public during the public review period on the Draft EIR;
- All comments and correspondence submitted to Daly City with respect to the proposed Project, in addition to timely comments on the Draft EIR;
- Any minutes and/or transcripts of all information sessions, public meetings, and public hearings held by Daly City in connection with the Project;
- Any documentary or other evidence submitted to Daly City at such information sessions, public meetings, and public hearings;
- The Daly City General Plan and the Daly City Municipal Code provisions cited in materials prepared by or submitted to Daly City;
- Any and all resolutions adopted by Daly City regarding the Project, and all staff reports, analyses, and summaries related to the adoption of those resolutions;
- Matters of common knowledge to Daly City, including but not limited to federal, state, and local laws and regulations;
- Any additional documents expressly cited in the Draft EIR and Final EIR and these findings; and
- Any other materials required for the record of proceedings by Public Resources Code section 21167.6(e).

The District has relied on all of the documents listed above in reaching its decisions on the Project even if not every document was formally presented to the District or Daly City Staff as part of the files generated in connection with the Project.

Without exception, any documents set forth above not found in the Project files fall into one of two categories. Many of them reflect prior planning or legislative decisions with which the District was aware in approving the Project. (See *City of Santa Cruz v. Local Agency Formation Commission* (1978) 76 Cal.App.3d 381, 391-392; *Dominey v. Department of Personnel Administration* (1988) 205 Cal.App.3d 729, 738, fn. 6.) Other documents influenced the expert advice provided to Daly City Staff or consultants, who then provided advice to the District as the final decision-making body. For that reason, such documents form part of the underlying factual basis for the District's decisions relating to approval of the Project. (See Pub. Resources Code, § 21167.6 (e)(10); *Browning-Ferris Industries v. City Council of City of San Jose* (1986) 181 Cal.App.3d 852, 866; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 153, 155.)

The documents constituting the record of proceedings are available for review by responsible agencies and interested members of the public during normal business hours at the Office of the City Clerk, 333 90th Street, Daly City, California.

# F. Certification of EIR

In accordance with CEQA and the CEQA Guidelines the District hereby certifies that the EIR has been completed in compliance with CEQA and the CEQA Guidelines. The District has reviewed and considered the information in the record and the EIR prior to recommending approval of any element of the Project. By making these findings, the District confirms that the EIR is adequate to support the approval of the Project and the District ratifies and adopts the findings and conclusions of the EIR, as supplemented and modified by the findings contained herein.

# G. Findings about Significant Environmental Impacts and Mitigation Measures

The following Sections II, III, and IV set forth the District's findings about the Final EIR's determinations regarding significant environmental impacts and the mitigation measures proposed to address them. These findings provide the written analysis and conclusions of the District regarding the environmental impacts of the Project and the mitigation measures included as part of the Final EIR and adopted by the District as part of the Project. To avoid duplication and redundancy, and because the District agrees with, and hereby adopts, the conclusions in the Final EIR, these findings do not repeat the analysis and conclusions in the Final EIR, but instead incorporate them by reference herein and rely upon them as substantial evidence supporting these findings.

In making these findings, the District has considered the opinions of District staff and experts, other agencies, and members of the public. The District finds that the determination of significance thresholds is a judgment decision within the discretion of the City of Daly City; the

significance thresholds used in the EIR are supported by substantial evidence in the record, including the expert opinion of the EIR preparers and City staff; and the significance thresholds used in the EIR provide reasonable and appropriate means of assessing the significance of the adverse environmental effects of the Project. Thus, although, as a legal matter, the District is not bound by the significance determinations in the EIR (see CEQA § 21082.2(e)), the District finds them persuasive and hereby adopts them as its own.

These findings do not attempt to describe the full analysis of each environmental impact contained in the Final EIR. Instead, a full explanation of these environmental findings and conclusions can be found in the Final EIR and these findings hereby incorporate by reference the discussion and analysis in the Final EIR supporting the determination regarding the Project impacts and mitigation measures designed to address those impacts. In making these findings, the District ratifies, adopts, and incorporates in these findings the determinations and conclusions of the Final EIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

As set forth below, the District adopts and incorporates all of the mitigation measures set forth in the Final EIR to substantially lessen or avoid the potentially significant and significant impacts of the Project The impact numbers and mitigation measure numbers used in these findings reflect the information contained in the Final EIR.

In the Sections II, III, and IV below, the same findings are made for a category of environmental impacts and mitigation measures. Rather than repeat the identical finding dozens of times to address each and every significant effect and mitigation measure, the initial finding obviates the need for such repetition because in no instance is the District rejecting the conclusions of the Final EIR or the mitigation measures recommended in the Final EIR for the Project.

# II. Impacts Found Not to Be Significant and Thus Not Requiring Mitigation

Under CEQA, no mitigation measures are required for impacts that are less than significant. (CEQA, § 21002; CEQA Guidelines, §§ 15126.4 (a)(3), 15091.) The Final EIR identified impacts found not to be significant for each component of the Vista Grande Drainage Basin Improvement Project. Based on the evidence in the whole record of this proceeding, the District finds that implementation of the Project will not result in any significant impacts in the following areas and that these impact areas therefore do not require mitigation. The District notes that NPS, the federal lead agency under NEPA, has discretion to require and adopt mitigation for impacts not found to be significant in the CEQA analysis of the Project. Such mitigation is represented in the MMRP as being required by NPS, and is not relevant to the determination of significance under CEQA of the impacts listed below.

## Aesthetics

**Impact AES-1:** Project construction would not result in a substantial adverse impact on a scenic vista or scenic resource, or on the visual character or quality of the site or its surroundings.

**Impact AES-2:** Project operation would not result in a substantial adverse impact on a scenic vista, scenic resource, or on the visual character or quality of the site or its surroundings.

**Impact AES-4:** Project operation would not result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

## Air Quality

Conflict with or obstruct implementation of the applicable air quality plan (no impact).

**Impact AIR-3:** The Project would not expose sensitive receptors to substantial pollutant concentrations.

**Impact AIR-4:** The Project would not create objectionable odors affecting a substantial number of people.

## Biological Resources

Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (no impact).

**Impact BIO-11:** Project operation would not adversely affect species identified as candidate, sensitive, or special-status wildlife species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

**Impact BIO-13:** Project operation would not adversely affect resident fisheries and fish habitat associated with Lake Merced.

**Impact BIO-14**: Project operation would not adversely affect wetland habitats and other waters of the United States associated with Lake Merced.

## Geology and Soils

Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater (no impact).

## Greenhouse Gas Emissions and Climate Change

Conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs (no impact).

## Hazards and Hazardous Materials

Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed School (no impact).

Be Located on a Site that is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, as a Result, Create a Significant Hazard to the Public or the Environment (no impact).

Be Located within an Airport Land Use Plan or in the Vicinity of a Private Airstrip (no impact).

Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Fires (no impact).

**Impact HAZ-1:** Project construction could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

**Impact HAZ-4:** Project operation would not increase human exposure to vector-borne diseases as a result of implementation.

## Hydrology and Water Quality

Placement of Housing within a 100-Year Flood Zone (no impact).

Exposure to Flooding from Failure of a Levee or Dam (no impact).

**Impact HYD-2:** The Project could deplete groundwater supplies or interfere substantially with groundwater recharge.

**Impact HYD-3:** The Project could alter existing drainage patterns, causing downstream erosion or siltation.

**Impact HYD-4:** The Project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows.

**Impact HYD-5:** The Project could alter existing drainage patterns and increase the potential for flooding and could expose people or structures to a significant risk of loss, injury or death involving flooding or could result in increased stormwater runoff which would exceed the capacity of existing or planned stormwater drainage systems.

**Impact HYD-6:** Project maintenance could violate water quality standards and/or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality in Lake Merced.

**Impact HYD-7:** The Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.

**Impact HYD-8:** Project operation could violate water quality standards, waste discharge requirements, provide substantial additional sources of polluted runoff or otherwise substantially degrade water quality in Lake Merced.

## Land Use and Planning

Physically divide an established community (no impact).

Conflict with any applicable habitat conservation plan or natural community conservation plan (no impact).

## Noise and Vibration

For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within 2 miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels (no impact).

For a project located in the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels (no impact).

**Impact NOI-3:** Project operation would not expose receptors to noise levels in excess of the San Francisco Noise Ordinance; would not expose persons to excessive groundborne vibration or groundborne noise levels; and would not result in a substantial permanent, temporary, or periodic increase in ambient noise levels in the Project vicinity above existing levels.

## Recreation

Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment (no impact).

**Impact REC-1:** Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

## Population and Housing

Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) (no impact).

Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere (no impact).

Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere (no impact).

## Transportation and Traffic

Conflict with an applicable congestion management program, including but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways (no impact).

Result in a change in air traffic patterns, including either an increase in traffic levels or a change in locations that results in substantial safety risks (no impact).

Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (no impact).

**Impact TRA-2:** Project operation and maintenance would cause some temporary increases in traffic volumes on area roadways, but would not substantially conflict with the performance of the circulation system or with plans, ordinances, or policies pertaining to the performance of the circulation system.

**Impact TRA-3:** Project construction would not impair access to adjacent roadways and land uses, or impede emergency access.

**Impact TRA-4:** Project construction would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

## Utilities and Service Systems

Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (no impact).

Require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects (no impact).

**Impact UTIL-1:** The Project would not exceed wastewater treatment requirements of the San Francisco Regional Water Quality Control Board nor result in a determination by a wastewater treatment provider that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing entitlements.

**Impact UTIL-2:** The Project would not require more water supply than would be available through existing entitlements and resources, nor would it require new or expanded water supply resources or entitlements.

**Impact UTIL-3:** Project construction would not result in a substantial adverse effect related to landfill capacity.

**Impact UTIL-4:** The Project would not result in a substantial adverse effect related to compliance with federal, State, and local statutes and regulations pertaining to solid waste.

**Impact UTIL-5:** Project construction could result in a substantial adverse effect related to disruption of utility operations or accidental damage to existing utilities.

# III. Findings of Potentially Significant Impacts That Can Be Avoided or Reduced to a Less-than-Significant Level through Mitigation, and the Disposition of the Applicable Mitigation Measures

CEQA requires agencies to adopt mitigation measures that would avoid or substantially lessen a project's identified significant impacts or potential significant impacts if such measures are feasible (unless mitigation to such levels is achieved through adoption of a project alternative). The findings in this Section III and in Section IV concern mitigation measures set forth in the EIR. The full text of the mitigation measures is contained in the Final EIR and in Attachment A, the Mitigation Monitoring and Reporting Program. The District recognizes that some of the mitigation measures are partially within the jurisdiction of other agencies, including the SFPUC and NPS. The District urges these agencies to assist in implementing these mitigation measures, and finds that these agencies can and should participate in implementing these mitigation measures.

## Aesthetics

**Impact AES-3:** Project construction could result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

It is anticipated that tunneling activities could occur 24 hours per day in two to three shifts, and construction of the replacement pipe section and piers on the beach would necessitate 24-hour work over a period of several days to one week. Construction would create a new temporary source of nighttime lighting in the immediate area and the light and glare effects from Project construction could be substantial.

**Mitigation Measure 3.4-9: Night Lighting Minimization**

All construction nighttime lighting shall be fully shielded and focused downward to ensure that no significant illumination passes beyond immediate work area or vertically into the sky. Warm colored light shall be used where feasible.

## Air Quality

**Impact AIR-1:** The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Without appropriate dust controls, dust emissions generated within federally administered areas could contribute to the SFBAAB's existing PM10 and PM2.5 non-attainment status, a potentially significant impact.

**Mitigation Measure 3.3-1: Dust Control Plan Implementation**

All elements of the Dust Control Plan required for work within San Francisco shall also be implemented for work occurring at Fort Funston. At a minimum this Plan shall include watering of exposed surfaces, covering of haul trucks, and sweeping of visible mud or dirt on adjacent public roads.

**Impact AIR-2:** The Project could result in a cumulatively considerable net increase of ozone, PM10, or PM2.5 (for which the SFBAAB is in non-attainment), including releasing emissions which exceed quantitative thresholds for ozone precursors. Construction activities would result in cumulatively significant fugitive dust emissions.

See **Mitigation Measure 3.3-1: Dust Control Plan Implementation**

# Biological Resources

**Impact BIO-1:** Project construction could have a substantial adverse effect either directly or through habitat modifications, on plant species identified as sensitive or special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Project construction activities including materials and equipment staging at multiple sites within at Fort Funston associated with the Vista Grande Tunnel and Ocean Outlet replacement, maintenance on and use of the Avalon Canyon Road beach access route, and construction of the Impound Lake discharge structure could result in impacts to special-status plant populations and their supporting vegetation communities.

**Mitigation Measure 3.4-1: Avoidance, minimization, and compensation for impacts to special-status plants**

A qualified botanist shall conduct appropriately timed floristic preconstruction surveys for special-status plant species with a moderate or high potential to occur in the study area, and for species known to be present in the study area, in all suitable habitat that would be potentially disturbed by the Project within the year of initiation of ground disturbance. If special-status plants are found during surveys, a reporting and avoidance/relocation/compensation program shall be conducted as described in this measure.

**Impact BIO-2:** Project construction could have a substantial adverse effect either directly or through habitat modifications, on reptile species identified as special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Construction of the Lake Merced overflow structure in South Lake and the outlet structure on the bank and within waters of Impound Lake could adversely affect the western pond turtle by direct mortality, should it be present, which would be a significant impact.

**Mitigation Measure 3.4-2: Worker Training Worker Environmental Awareness Program Training**

A Project-specific Worker Environmental Awareness Program (WEAP) training shall be developed and implemented by a qualified biologist and attended by all Project personnel prior to beginning work onsite.

**Mitigation Measure 3.4-2b: Avoidance and Minimization Measures for Western Pond Turtle**

During construction at the Lake Merced overflow structure in South Lake, construction at the outlet structure on the bank and within waters of Impound Lake, and during installation of the in-lake treatment infrastructure a qualified biological monitor shall be present during vegetation removal and the installation of exclusion fencing and cofferdam at Impound Lake.

**Impact BIO-3:** Project construction could have a substantial adverse effect either directly or through habitat modifications, on migratory birds and/or on bird species identified as special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Construction activities could disrupt birds attempting to nest in the vicinity of the Project site, disrupt parental foraging activity, or displace mated pairs with territories in the Project vicinity.

**Mitigation Measure 3.4-3: Nesting Bird Protection Measures**

Construction activities that may compromise breeding birds or the success of their nests shall be conducted outside of nesting season. If construction cannot be avoided during nesting season, a qualified wildlife biologist shall conduct preconstruction nesting surveys within 7 days prior to the start or resumption of construction after any breaks of 14 days or more. If active nests are located during the preconstruction bird nesting surveys, a qualified biologist shall conduct an evaluation and monitoring program as described in this measure.

**Impact BIO-4:** Project construction could have a substantial adverse effect either directly or through habitat modifications, on bats identified as special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Clearing vegetation (including trees) and removing structures in support of Project construction could result in direct mortality of special-status bats roosting in tree cavities, under bark, and in structures within the Project site. Direct mortality of special-status bats would be a significant impact. Additionally, common bats may establish maternity roosts in these same locations which are protected under CEQA.

**Mitigation Measure 3.4-4: Avoidance and Minimization Measures for Special-Status Bats**

A preconstruction survey for special-status bats shall be conducted by a qualified biologist in advance of tree and structure removal within the project site to characterize potential bat habitat and identify active roost sites. Should the preconstruction survey find no bat habitat or bat roosting sites then no further action is required. Should potential roosting habitat or active bat roosts be found in trees and/or structures to be removed under the project, Daly City shall implement avoidance and minimization measures as described in this measure.

**Impact BIO-5:** Project construction could have a substantial adverse effect on central dune scrub, a sensitive natural community identified by the CDFW. Impacts to central dune scrub are expected to occur during Project-related improvements to the Avalon Canyon access road and through use of the proposed staging area at Fort Funston where approximately 0.497-acre of central dune scrub is present on the eastern and southern boundaries. In addition, restored central dune scrub has been established near Impound Lake where the outlet structure is proposed; however, the Project facilities are not located in areas where central dune scrub has been mapped.

**Mitigation Measure 3.4-5: Avoidance, minimization, and compensation for impacts to central dune scrub.**

Concurrent with focused botanical surveys, prior to establishing staging areas or beginning construction activities, areas of central dune scrub vegetation within the Project footprint and within a 50-foot buffer adjacent to the Project footprint shall be

mapped by a qualified botanist. To the extent feasible, Project elements shall be designed to avoid and minimize impacts to central dune scrub as described in this measure.

**Impact BIO-6:** Project construction would not have a substantial adverse effect on upland vegetation communities identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Trees that may be impacted by the Project during construction occur in an area managed by the San Francisco Department of Public Works (SFDPW) or located on San Francisco owned land. Such areas are subject to Article 16, Section 808 of the Public Works Code as designated street or significant trees.

**Mitigation Measure 3.4-6: Implement Tree Protection Measures and Plant Replacement Trees**

A certified arborist shall perform a tree survey of the Project prior to construction to identify trees to be removed, trimmed, or retained and that shall need to be protected during construction. Trees to be trimmed or retained under the Project shall be protected during construction by measures determined by the certified arborist, and trees to be removed shall follow SFDPW tree removal permit process as described in this measure.

**Impact BIO-7:** Project construction would have a substantial adverse effect on sensitive communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS through the introduction or spread of invasive plants. Project construction activities could contribute to the spread of invasive plants and introduce new invasive plants to the study area through earth moving, transport of vehicles, equipment and materials, and unanticipated sediment dispersal during rain events which would be a significant impact.

**Mitigation Measure 3.4-7a: Control Measures for Spread of Invasive Plants**

Construction best management practices shall be implemented in all construction areas to prevent the spread of invasive plants, seed, propagules, and pathogens as described in this measure.

**Mitigation Measure 3.4-7b: Post-Construction Treatment of Upland Areas**

Upon completion of final grading, and in order to prevent the establishment and spread of invasive plant species in upland areas temporarily disturbed by construction activities, hydroseed or broadcast seed of a native plant seed mix shall be applied to upland areas disturbed during construction as described in this measure.

**Impact BIO-8:** Project construction could have a substantial adverse effect on wetlands and other jurisdictional waters. Project impacts to these potential jurisdictional features would involve temporary and permanent discharges of structures and/or fill within waters and wetlands, and/or alterations of the bed and/or banks of a lake or stream, to accommodate Project activities.

**Mitigation Measure 3.4-8a: Wetland Avoidance and Protection**

Access roads, work areas, and infrastructure shall be sited to avoid and minimize direct and indirect impacts to wetlands and waters to the extent feasible. Where work will occur on the Project adjacent to state and federal jurisdictional wetlands and waters, protection measures shall be applied to protect these features as described in this measure.

**Mitigation Measure 3.4-8b: Compensation for Impacts to Wetlands and Riparian Habitat**

To offset temporary impacts, restoration to pre-project conditions shall be conducted, as required by regulatory permits. To offset unavoidable permanent impacts to jurisdictional wetlands, waters, and to riparian habitat, compensatory mitigation shall be provided as required by regulatory permits as described in this measure.

**Impact BIO-9:** Project construction could impede movement of native resident fish species. A variety of common fish species reside in Lake Merced and could be adversely affected by in-water work at the lake associated with the Project.

See **Mitigation Measure 3.4-2b: Avoidance and Minimization Measures for Western Pond Turtle**

**Impact BIO-10:** Project construction could interfere substantially with the movement of native resident or migratory species or with established native resident or migratory corridors, or impede the use of nursery sites. Construction activities associated with the Ocean Outlet and the submarine outfall on Ocean Beach and those associated with the Fort Funston tunnel shaft staging and work area could adversely impact birds migrating along the Pacific Flyway and nearby resident wildlife with the introduction of night lighting into an otherwise dark environment.

See **Mitigation Measure 3.4-9: Night Lighting Minimization**

**Impact BIO-12:** Project operation could adversely affect central dune scrub, thimbleberry, wax myrtle, and canyon live oak scrub, and Vancouver rye grassland associated with Lake Merced. Loss of central dune scrub would be less than 1 percent under the Project and canyon live oak would be unaffected. Wax myrtle scrub would be unaffected by increased lake levels up to 9 feet City Datum but would incur a 12.50 percent loss at a 10 feet City Datum WSE, which would be considered significant. Thimbleberry scrub occurs above 13 feet City Datum and would not be inundated by rising water surface elevations under any scenario. Vancouver rye grassland would incur losses below 10 percent with an increase in lake levels up through 9 feet City Datum but would experience significant impacts at 10 feet where there would be a 46.15 percent loss (i.e., if the target maximum of 9.5 WSE was selected).

**Mitigation Measure 3.4-10a: Lake Level Management**

The Lake Merced overflow weir in South Lake shall be set at no greater than 9 feet City Datum to prevent lake water surface elevation from having significant effects on wax myrtle scrub, Vancouver rye grassland, and eucalyptus forest. Should an operating WSE above 9 feet City Datum be selected or an extreme storm event requires temporary storage in Lake Merced that would increase WSE above 9 feet City Datum for more than 14 days (at which time vegetation die-off could occur), Mitigation Measure 3.4-10b is required.

**Mitigation Measure 3.4-10b: Compensation for Loss of Sensitive Communities at Lake Merced**

If 9.5 feet City Datum is selected as the target maximum WSE and Lake Merced water levels are not maintained at or below 9 feet City Datum during normal operations, or a storm event requires storage in Lake Merced that would increase WSE above 9 feet City

Datum for more than 14 days for wax myrtle scrub and Vancouver rye grassland or for more than one month for blue gum eucalyptus forest, a resurvey of these sensitive vegetation communities around the Lake Merced shoreline to which a significant impact is predicted to occur (i.e., more than 10 percent loss) shall be performed post-inundation to determine actual percent loss.

An onsite revegetation and restoration plan as described in Mitigation Measure 3.4-10b shall be prepared to compensate for the affected sensitive vegetation communities and habitat lost (in excess of 10 percent) with a maintained WSE above 9 feet City Datum for 14 days or more for wax myrtle scrub and Vancouver rye grassland and for one month or more for eucalyptus forest.

**Impact BIO-15:** Project operation could adversely affect native wildlife nursery sites associated with Lake Merced. Water level increases above 9 feet City Datum under the Project that persist for more than one month (i.e., with a target maximum WSE of 9.5 feet) would result in the change in habitat attributed to the Project in excess of 10 percent which would be considered a significant impact on these wildlife nursery sites.

See **Mitigation Measure 3.4-10a: Lake Level Management**

See **Mitigation Measure 3.4-10b: Compensation for Loss of Sensitive Communities at Lake Merced**

## Cultural and Paleontological Resources

**Impact CUL-2:** The Project could cause a substantial adverse change in the significance of an archaeological resource, including shipwrecks. While unlikely, ground-disturbing activities could expose and cause impacts on unknown archaeological resources or shipwrecks, which would be a potentially significant impact. The existing outlet is approximately 900 feet north of the shipwreck remains of the 1882 schooner *Neptune* from 1900.

**Mitigation Measure 3.5-3: Inadvertent Discovery of Archaeological Resources or Shipwrecks.**

If construction activities result in the inadvertent discovery of an archaeological resource, measures regarding training construction personnel, and notification, inspection, preservation, and treatment requirements are discussed in this measure.

**Impact CUL-3:** Project construction could disturb human remains. Project construction could result in direct impacts to previously undiscovered human remains during earthmoving activities.

**Mitigation Measure 3.5-4: Inadvertent Discovery of Human Remains.**

If construction activities result in the inadvertent discovery of human remains, measures associated with compliance of applicable state laws regarding the treatment of such remains are described in this measure.

# Geology and Soils

**Impact GEO-1:** Construction, operation, and maintenance of the Project could expose people or structures to potential substantial adverse effects involving strong seismic ground shaking and/or seismic-related ground failure. Holocene slip was observed in trench exposures of the Serra Fault and geotechnical investigation concluded there is a potential for sympathetic offset within the proposed tunnel alignment as a result of rupture on the nearby San Andreas Fault. Groundshaking during an earthquake in the Project area has the potential to be strong, with peak ground acceleration around 0.6 g, which could result in significant groundshaking effects on the proposed facilities. Also, seismic damage due to liquefaction and related phenomena could occur along the pipeline and at other facilities. In particular, the new tunnel portal and Lake Merced overflow inlet are planned in an area of potentially liquefiable soil.

> **Mitigation Measure 3.6-1a:** Prior to final Project design, a qualified engineer and/or geologist shall perform an inspection to map the size, location, orientation, and patterns of cracks and any crack offsets to provide additional insight into possible tunnel deformation related to faulting, and to help better assess the potential impact of the Serra Fault Zone during future seismic events on the San Andreas Fault.
>
> **Mitigation Measure 3.6-1b:** Daly City and/or its contractor(s) shall retain inspectors working under the auspices of a California-licensed geotechnical engineer to be present on the Project site during excavation, grading, and general site preparation activities to monitor the implementation of the recommendations specified in this measure.
>
> **Mitigation Measure 3.6-1c:** Project foundations in the vicinity of Boring B-3 shall be constructed using cast-in-place drilled piers, micropiles, or another equivalent deep foundation system such as auger-cast or displacement piles or a torqued-in piling system for deep foundations.

**Impact GEO-2:** The Project could result in substantial soil erosion or the loss of topsoil. Construction activities such as excavating, trenching, and grading can remove stabilizing vegetation and expose areas of loose soil that, if not properly stabilized during construction, can be subject to erosion by wind and stormwater runoff, potentially resulting in a significant impact with respect to soils. Also, during operation of the project, erosion and improper water flow could occur within the retaining wall backdrain systems if they are not properly maintained.

> **Mitigation Measure 3.6-2:** Annual maintenance shall include the following: inspection and flushing to make sure that subdrain pipes are free of debris and are in good working order; and inspection of subdrain outfall locations to verify that introduced water flows freely through the discharge pipes and that no excessive erosion has occurred.

**Impact GEO-3:** The Project may be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project. The outlet structure is in an area where the potential for shallow or wedge failures up to about 10 to 15 feet thick under static conditions is moderate to high. During large seismic events, the potential for relatively large-scale landsliding is high. In addition, there is landslide potential at Avalon Canyon which would provide beach access during construction of the outlet structure.

**Mitigation Measure 3.6-3a:** Recommendations regarding site preparation, foundations, retaining walls, seismic design, and other geotechnical aspects provided in the geotechnical report shall be incorporated into this Project and are discussed in this measure.

**Mitigation Measure 3.6-3b:** Prior to final Project design, additional slope stability studies, including updated geologic mapping and slope stability analysis, shall be performed by a California-licensed geotechnical engineer to evaluate potential for weakened blocks that could become loose during outlet construction or tunneling. Also, stability analyses shall be completed to evaluate the potential impacts of bluff failure on the new outlet structure to be constructed at the base of the cliff. If potential for weakened blocks to become loose or for bluff failure to occur during construction, the study shall include design specifications and construction methods, such as use of temporary structural supports, to avoid such effects. Recommendations from the studies shall be incorporated into the final Project design and construction methods, and implemented by Daly City and/or its contractors.

**Impact GEO-4:** The proposed Project would not create substantial risks to life or property due to expansive or corrosive soils. Project area soils have a mild to moderate corrosion potential which could be corrosive to micropiles.

**Mitigation Measure 3.6-4:** Daly City and/or its contractors shall ensure that all micropiles used for the Project are double-corrosion protected.

## Greenhouse Gas Emissions and Climate Change

**Impact GHG-1:** Project construction and operation would generate GHG emissions. Total short-term Project construction-related GHG emissions would be below BAAQMD's quantitative threshold of 1,100 metric tons CO2e per year for non-stationary sources in construction years 1 and 3, but would be above this threshold during year 2. Impacts associated with construction-related GHG emissions would be less than significant if tunnel drives are constructed concurrently, if tunneling occurs on a 24-hour basis, or both.

**Mitigation Measure 3.7-1: Greenhouse Gas Emission Reduction**

Daly City and/or its contractors shall implement measures associated with on-road vehicle idling times, biodiesel fueling for generators, pre-construction GHG modeling, and the purchase of carbon offsets as described in this measure.

## Hazards and Hazardous Materials

**Impact HAZ-2:** Project construction could result in a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Lead is a known contaminant within 0.25 mile of the Project site. During construction, ground-disturbing activities could unearth unexploded ordnance, which would pose a safety risk to workers on-site.

**Mitigation Measure 3.8-1: Health and Safety Plan.**

The construction contractor(s) shall prepare and implement a site-specific Health and Safety Plan in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation, grading, and construction activities. A description of elements for inclusion in the Health and Safety Plan are described in this measure.

**Impact HAZ-3:** Project construction would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Construction could affect the availability of travel lanes when construction occurs within or adjacent to John Muir Drive, due to the presence of large, slow-moving trucks that may cause delays. These delays could interfere with implementation of the Emergency Response Plan, which would be a significant impact.

See **Mitigation Measure 3.15-1: Construction Traffic Management Plan**

## Hydrology and Water Quality

**Impact HYD-1:** Project construction could violate water quality standards and/or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality. Construction of the Lake Merced outlet structure on the bank and within waters of Impound Lake and of the Lake Merced overflow structure in South Lake could result in discharges of pollutants to Lake Merced directly, resulting in substantial water quality effects.

**Mitigation Measure 3.9-1: Implement Cofferdam Dewatering BMPs for In-Water Work**

If dewatering discharge produced during construction of the Lake Merced outlet and overflow structures is not discharged to the sewer system, a requirement shall be included in construction specifications that requires the construction contractor(s) to implement standard BMPs developed and approved by Daly City for the treatment of sediment-laden water produced during cofferdam dewatering activities. BMPs are described in this measure.

## Noise and Vibration

**Impact NOI-1**: Project construction could temporarily expose persons to or generate noise levels in excess of local noise ordinances or create a substantial temporary increase in ambient noise levels. Construction activities around the Canal and Tunnel, in combination with the impact pile driving at the John Muir Drive crossing and Fort Funston shaft, may have the potential to exceed the 70 dBA $L_{eq}$ speech interference threshold for greater than two weeks. Additionally, Tunnel construction activities would generate substantial continuous noise at Fort Funston, where visitors may value an increased degree of quiet for passive recreational uses.

**Mitigation Measure 3.11-1**: Construction contractors shall implement noise control measures for equipment and trucks, impact tools, and stationary construction noise sources as described in this measure.

**Mitigation Measure 3.11-2:** Construction contractors shall address further potential nuisance impacts of Project construction by posting signs at construction site entrances that describe requirements of Mitigation Measure 3.11-1, and include permitted construction days and hours, contact information for the job site and a contact number in the event of problems. An onsite complaint and enforcement manager shall respond to and track complaints and questions related to noise.

**Impact NOI-2:** Project construction could result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. The vibration levels at the Missile Assembly Building in Fort Funston would be above the FTA's building damage threshold for susceptible buildings; therefore, this source of ground-borne vibration could result in a significant impact to that building.

**Mitigation Measure 3.11-3:** To address the vibration impact at the Missile Assembly Building located in Fort Funston, Daly City shall require construction contractors to implement vibration monitoring measures as described in this measure.

## Geologic and Paleontological Resources

**Impact PAL-1:** The Project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Because new disturbance would occur within geologic units with moderate to high potential for paleontological resources, potentially significant fossils could be adversely affected during construction, particularly within the Merced Formation. Furthermore, ground-disturbing activities could expose and cause impacts on unknown paleontological resources, which would be a potentially significant impact.

**Mitigation Measure 3.12-1: Inadvertent Discovery of Paleontological Resources.**

Training, monitoring, evaluation, reporting, treatment, and salvage procedures related to the inadvertent discovery of paleontological resources are discussed in this measure.

## Transportation and Traffic

**Impact TRA-1:** Project construction would cause temporary increases in traffic volumes on area roadways, which could cause substantial conflicts with the performance of the circulation system, but would not conflict with applicable plans, ordinances, or policies pertaining to the performance of the circulation system. The increased local congestion/delay and potential conflicts involving Project trucks is considered to be a significant impact.

**Mitigation Measure 3.15-1: Construction Traffic Management Plan**

Daly City and/or its contractor(s) shall prepare and implement a Construction Traffic Management Plan in accordance with professional traffic engineering standards to show methods for maintaining traffic flows on roadways and access to recreational resources directly affected by Project construction. Such requirements are discussed in this measure.

**Impact TRA-5:** Project construction would result in increased wear-and-tear on the designated haul routes. The wear-and-tear effects on road conditions and driving safety is considered to be a

significant impact. Local streets (e.g., Avalon Drive and Fort Funston Road) generally are not built with a pavement thickness that will withstand substantial truck traffic volumes.

> **Mitigation Measure 3.15-2:** Daly City, San Francisco, and the National Park Service shall enter into an agreement prior to construction that shall detail pre-construction conditions and the post-construction requirements of a roadway rehabilitation program. Daly City and/or its contractors shall repair roads damaged by construction to a structural condition equal to that which existed prior to construction activity.

# IV. Significant Impacts That Cannot Be Avoided or Reduced to a Less-than-Significant Level

Notwithstanding existing regulations and the mitigation measures set forth for adoption in the MMRP, the impacts discussed in this Section IV cannot be fully mitigated to a less-than-significant level. For each impact that is determined to be significant and unavoidable, a Statement of Overriding Considerations has been prepared for that impact and is set forth in Section VI, below.

## Cultural and Paleontological Resources

**Impact CUL-1:** The Project would cause a substantial adverse change in the significance of a historical resource because it would demolish the majority of the historic The Vista Grande Canal and Tunnel is recommended eligible for listing in the National Register of Historic Places under Criterion A (events) and C (architecture/engineering). As such, the property meets the definition of a historical resource a defined under CEQA Guidelines Section 15064.5. The proposed Project would replace approximately 1,350 feet of the upstream portion of the Canal with a concrete collection box, box culvert, debris screening device, and diversion structure. Replacement of the Canal with a box culvert would support development of a constructed treatment wetland in an area between John Muir Drive and the southern edge of the Canal. The Project also would demolish and later replace 150 feet of the downstream portion of the Canal to accommodate a temporary access ramp for construction of the rehabilitated Lake Merced Portal. The total length of Canal replacement would be approximately 1,500 feet, or approximately 42 percent of its 3,600-foot length.

The proposed Project also would replace the Vista Grande Tunnel in its entirety to increase its flow capacity. The existing brick-lined tunnel would be excavated and a new tunnel with a larger-diameter concrete lining would be constructed in its place. Tunneling would begin from a temporary 30-foot-diameter construction shaft located at Fort Funston. Once completed, two new 24-inch wastewater pipelines would be installed within the tunnel to replace the existing force main. At Fort Funston, the existing Ocean Outlet would also be demolished and replaced with a new outlet structure.

Although approximately 58 percent or about 2,100 feet of the Canal would remain intact after completion of the Project, the Project would demolish the remaining 1,500 feet of the Canal and all of the 3,000-foot-long Tunnel, thereby substantially affecting of the vast majority (69 percent)

of the Vista Grande Canal and Tunnel as an entire drainage system. As the proposed Project would result in the physical demolition of a resource such that the significance of the historical resource would be materially impaired, it would cause a substantial adverse change in the significance of a historical resource, which is considered a *significant* impact.

This impact could be reduced with implementation of **Mitigation Measure 3.5-1** (HABS/HAER Recordation) and **3.5-2** (Public Interpretation). However, even with implementation of **Mitigation Measures 3.5-1** and **3.5-2,** the impact would remain *significant and unavoidable*, as there are no measures available that would avoid the loss of the structure to a *less-than-significant* level.

**Mitigation Measure 3.5-1: HABS/HAER Recordation**

Prior to initiation of Project construction or demolition, the City of Daly City, in consultation with the NPS, shall record the Vista Grande Canal and Tunnel in accordance with the NPS Historic American Building Survey/Historic American Engineering Record (HABS/HAER) program. This program entails: 1) documentation of the canal and tunnel through large-format black and white photographs (including the interior of the length of the tunnel), 2) preparation of a historic resources report, 3) preparation of measured drawings (or copies of original plans), and 4) archiving of the documentation package at the U.S. Library of Congress, the City of Daly City, Golden Gate park archives, and other local repositories such as public libraries. The specific HABS/HAER requirements of the Vista Canal and Tunnel will be further detailed in consultation with the NPS Pacific Western Region's HABS/HAER coordinator.

**Mitigation Measure 3.5-2: Public Interpretation**

Prior to the completion of the Project, the City of Daly City, in coordination with the NPS, shall prepare a public interpretation package that may entail interpretive materials, including but not limited to signage, brochures, videos, historical narrative, or other printed or web-based methods of explaining the historical and engineering significance of the Vista Grande Canal and Tunnel to the general public.

## Hydrology and Water Quality

**Impact HYD-9:** The Project could conflict with plans, policies, or regulations related to alteration of coastal landforms or processes adopted for the purpose of avoiding or mitigating an environmental effect.

The Project's construction and operation could alter the existing natural beach dynamics and the coastal environment, thereby resulting in altered bluff erosion rates and patterns. Coastal development in California is regulated by the California Coastal Commission pursuant to the California Coastal Act. For the purposes of CEQA, the impact threshold is defined by conformance to the Coastal Act policies, and related conformance to NPS Management Policies.

The Coastal Act directs that new development that could alter natural shoreline processes shall be permitted when required to serve coastal dependent uses, protect existing structures, and only when designed to eliminate or mitigate adverse impacts on local shoreline sand supply (Public Resources Code Section 30235). The statute also states that new development shall "[a]ssure

stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs" (Public Resources Code Section 30253(b)).

The California Coastal Act directs that new coastal development, such as the Ocean Outlet structure, be designed to ensure that impacts on local shoreline sand supply are eliminated or mitigated (Section 30235) and that the Project not create or contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs (Section 30253(b)). Further, the CCC's 2015 Sea Level Rise Policy Guidance outlines a process for evaluating and expands upon the factors (e.g., avoidance, alternatives, and adaptation) that the CCC will consider in determining whether a proposed shoreline development project is consistent with the Coastal Act.

The wing walls are proposed to promote the stability and structural integrity of the Ocean Outlet structure, reduce erosion directly behind the wing walls, and extend the operating life of the Ocean Outlet. However, the wing walls would potentially result in alterations to coastal processes in a manner that could result in a reduced local sediment supply, an altered seasonal beach profile due to increased scour, and/or increased episodic bluff erosion. The wing walls thus constitute a protective device that has the potential to substantially alter natural landforms along bluffs and cliffs in the Project vicinity. For these reasons, elements of the Project may conflict with Coastal Act Sections 30235 and 30253(b) and CCC's Sea Level Rise Policy Guidance, which would be a significant impact. Even with implementation of **Mitigation Measure 3.9-2 (Avoidance and Minimization of Conflicts with California Coastal Act and NPS Management Policies)**, elements of the Project necessary to ensure structural integrity may still conflict with the policies in Coastal Act Sections 30235 and 30253(b) due to potentially reduced local shoreline sand supply and altered shoreline processes. Therefore, even with implementation of Mitigation Measure 3.9-2, certain Project features associated with the Ocean Outlet structures may still result in inconsistency with the policies governing local shoreline sand supply and alteration of landforms due to the construction of shoreline protective devices, provided in California Coastal Act Sections 30235 and 30253. As a result, Impact HYD-9 could remain significant and unavoidable even after the incorporation of available and feasible mitigation.

> **Mitigation Measure 3.9-2: Avoidance and Minimization of Conflicts with California Coastal Act and NPS Management Policies**
>
> The final design of the Ocean Outlet structures must minimize conflicts with the applicable Coastal Act requirements that new development: 1) be designed to eliminate or mitigate adverse effects on local shoreline sand supply (Section 30235); and 2) assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs (Section 30253). In order to minimize conflicts with these policies, Daly City shall undertake the steps described in this measure.

## Land Use and Planning

**Impact LU-1:** The project could conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

The Project could be inconsistent with some of the sub-policies of the Coastal Act and with portions of the NPS Management Policies regarding coastal processes. Implementation of **Mitigation Measure 3.9 2, Avoidance and Minimization of Conflicts with California Coastal Act and NPS Management Policies**, would require the final Project engineering design to minimize conflicts with the applicable Coastal Act requirements that new development: 1) be designed to eliminate or mitigate adverse effects on local shoreline sand supply and 2) assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs (California Coastal Act Sections 30235 and 30253) and with NPS Management Policies regarding minimization of safety hazards and harm to property and natural resources. However, even with implementation of **Mitigation Measure 3.9-2**, elements of the Project necessary to ensure structural integrity may still conflict with the policies in Coastal Act Sections 30235 and 30253(b) due to potentially reduced local shoreline sand supply and altered shoreline processes and/or with NPS Management Policies. Therefore, even with implementation of Mitigation Measure 3.9-2, certain Project features associated with the Ocean Outlet structures may still result in inconsistency with applicable land use plans and policies of agencies with jurisdiction over the coastal elements of the Project. As a result, Impact HYD-9, and therefore Impact LU-1 as well, could remain significant and unavoidable even after the incorporation of available and feasible mitigation. This finding is due in part to the inherent inconsistency between the policies requiring structural integrity with the policy concerning avoidance of shoreline protective devices that would substantially alter natural landforms along bluffs and cliffs.

> See **Mitigation Measure 3.9-2: Avoidance and Minimization of Conflicts with California Coastal Act and NPS Management Policies**

# V. Evaluation of Project Alternatives

This Section V describes the reasons for approving the Project and for rejecting the alternatives. CEQA mandates that an EIR evaluate a reasonable range of alternatives to the Project or the Project location that generally reduce or avoid potentially significant impacts of the Project. CEQA requires that every EIR also evaluate a "No Project" alternative. Alternatives provide a basis of comparison to the Project in terms of their significant impacts and their ability to meet Project objectives. This comparative analysis is used to consider reasonable, potentially feasible options for minimizing environmental consequences of the Project.

# A. Reasons for Approval of the Proposed Project

The specific objectives of the Vista Grande Drainage Basin Improvement Project are to:

- Improve stormwater drainage of the lower Vista Grande Basin to accommodate peak flows generated by the 25-year design storm;
- Provide a sustainable source of stormwater, establish a target maximum water surface elevation, and implement a Lake Management Plan for management of Lake Merced water quality, groundwater, and surface water elevation;
- Improve recreational access and reduce litter transfer and deposition along the beach below Fort Funston; and
- Maximize use of existing ROWs, easements, and infrastructure to minimize construction-related costs, habitat disturbance, and disruption to recreational users.

The Project would meet these objectives by responding to and helping Daly City meet the goal of improving stormwater drainage in the lower Vista Grande Basin by enlarging the existing Canal and Tunnel and providing a connection to store stormwater in Lake Merced in order to accommodate the 25-year design storm. It would also meet the objective of providing a sustainable source of water for management of Lake Merced water surface levels and water quality with implementation of the Lake Management Plan. The Project would meet the objective to improve recreational access and reduce litter transfer and deposition along the beach below Fort Funston by removing the portion of the existing Ocean Outlet structure that currently projects from the cliff face onto the beach and by installing debris screens that would remove litter from the stormwater that flows across the beach. Lastly, the Project would use existing easements and reuse some existing infrastructure.

As described in the Final EIR, the Project was proposed after several years of collaborative efforts to define a project that would meet one of the primary objectives of flood control in the Basin. Beginning in 2007, Daly City and its engineering and environmental consultants evaluated 17 alternative engineering concepts for managing stormwater in the Basin to alleviate flooding. The engineering alternatives included various combinations of facilities including different tunnel alignments and capacities, stormwater detention structures, and groundwater recharge facilities. These engineering alternatives were evaluated in a 2007 draft Alternatives Evaluation Report based on their potential for reducing flooding, operational viability, public impacts, environmental benefits, and constructability. The report also considered diversion of stormwater to Lake Merced as an optional element that could be used in combination with a new tunnel alignment or stormwater retention alternative to help address both flooding and water quality management objectives. Daly City held public meetings in 2008 to introduce interested parties to the conceptual engineering alternatives and hear input about the community's concerns. Following further discussions in July 2009 with the public and key stakeholders, Daly City and San Francisco agreed to explore the potential benefits of augmenting the existing infrastructure adjacent to and including Lake Merced to reduce the localized flooding potential within the watershed and simultaneously better manage Lake Merced water levels. This collaborative effort led to the inclusion of the "Lake Merced Alternative" in a revised Alternatives Analysis Report.

A public hearing was held in May 2011 to review the alternatives presented in this revision, and several stakeholders spoke in support of the Lake Merced Alternative. As a result of this evaluation process, Daly City further defined the Lake Merced Alternative, which became the proposed Project. As described below in Section V.B, the alternatives evaluated in the Final EIR were not found to be environmentally superior to the proposed Project, and each would result in additional new environmental impacts. Thus, the proposed Project is the environmentally superior alternative, and is preferred among the alternatives evaluated.

# B. Alternatives Rejected and Reasons for Rejection

The District rejects the Alternatives set forth in the Final EIR and listed below because the District finds that there is substantial evidence, including evidence of economic, legal, social, technological, and other considerations described in this Section that make infeasible such Alternatives, and/or that there is substantial evidence that these Alternatives would result in the same or more severe significant environmental impacts compared to the proposed Project. In making these determinations, the District is aware that CEQA defines "feasibility" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors" (CEQA § 21061.1). The District is also aware that under CEQA case law the concept of "feasibility" encompasses (i) the question of whether a particular alternative promotes the underlying goals and objectives of a project (*Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 cal.App.4$^{th}$ 704, 715) and (ii) the question of whether an alternative is "desirable" from a policy standpoint (*Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, 1269-1270; *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1162-1169) to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417).

## No Project Alternative

CEQA requires an EIR to evaluate a "no project" alternative to allow decision-makers to compare the impacts of approving a proposed project with the impacts of not approving it (CEQA Guidelines § 15126.6(e)). The "no project" analysis evaluates the existing conditions at the time the Notice of Preparation was published as well as what reasonably would be expected to occur in the foreseeable future if the proposed project were not approved, based on current plans, permits and available infrastructure and services.

Under the No Project alternative, no physical component of the proposed Project would be constructed and none of the proposed operational changes to stormwater routing would be made. The Lake Management Plan would not be implemented. The NPS would not grant the Special Use Permit, and no construction could occur within NPS-managed lands.

Annual Canal sediment removal activities would continue, as well as as-needed maintenance activities. Because Canal and Tunnel capacity would not be improved, occasional flooding of the

Canal and associated flooding of John Muir Drive into Lake Merced and in local neighborhoods would continue.

The No Project Alternative would avoid the short-term and long-term impacts associated with implementing the proposed Project, including (for example) traffic and noise impacts from construction, and permanent significant impacts on historic resources.

This alternative would not achieve the project objectives of providing flood and lake level management, nor would it achieve the beneficial effects on recreational access or litter reduction. The District rejects this alternative as infeasible within the meaning of CEQA. This alternative does not include Project components that will enable Daly City to achieve any of the Project objectives.

## Tunnel Alignment Alternative

The Tunnel Alignment Alternative would replace the proposed Project's Tunnel improvement and Lake Merced (East) Portal components with an entirely new tunnel up to approximately 50 feet to the south of the existing Tunnel in an alignment to be determined following additional geotechnical investigation, and a different east portal at a location that would be determined by the final alignment. The new tunnel would run west from a new east portal at the existing Canal to a new or rehabilitated Ocean Outlet structure. The components of the Tunnel Alignment Alternative could be paired with the proposed Canal components, or could be paired with the alternative Canal components described for the Canal Configuration Alternative.

The intent of this alternative was to avoid or further reduce some of the impacts on historic resources associated with replacement of the existing Vista Grande Tunnel with a larger tunnel. However, upon evaluation by the District's engineering consultant, it was determined that the existing Vista Grande Tunnel could not, safely and within the terms of existing easements and ROWs, be abandoned in place unless filled with concrete to prevent collapse and subsequent potential for ground subsidence above the tunnel alignment. Thus, even with implementation of Mitigation Measures 3.5-1 and 3.5-2, the impact of the Tunnel Alignment Alternative combined with either the proposed Canal improvements or the Canal Configuration Alternative would remain significant and unavoidable, as there are no measures available which would fully mitigate the loss of the Tunnel and partial loss of the Canal structure to a less-than-significant level. CEQA requires the evaluation of a reasonable range of alternatives that will reduce or avoid any of the significant environmental impacts of the Project. This alternative does not satisfy this requirement.

The District rejects this alternative as infeasible within the meaning of CEQA. This alternative does not include Project components that will enable Daly City to achieve Project objectives for the following reasons:

- **Similar or More Severe Impacts on Cultural Resources.** Daly City considered whether additional feasible mitigation could be implemented to further reduce the impact associated with filling the existing Tunnel with concrete. One option considered was to retain approximately 10 feet of the eastern or western portal of the Tunnel unfilled to allow it to be

viewed by the public and/or used for future study. This measure would reduce the impact, but would not reduce it to a less-than-significant level, as the vast majority of the Tunnel would be substantially altered. Retaining a portion of the eastern portal unfilled was determined to be infeasible for the same safety reasons described above because in this location, the tunnel is closest to the ground surface, and collapse of the retained and abandoned portion could result in a collapse of the ground surface. Additionally, retaining a portion of the western portal unfilled would only be effective temporarily. As the bluff continues to recede after completion of construction, portions of the Tunnel would again become exposed on the beach, and Daly City would need to periodically demolish and remove the exposed portions of its infrastructure. Therefore, within approximately 25 years, the retained portion would be expected to be demolished. Additionally, retention of a portion of the Tunnel for the purposes of public or research-related access could create a safety hazard.

- **Increased Visual Impacts.** If a new ocean outlet location is selected, a third outlet structure (in addition to the existing Ocean Outlet structure and SFPUC's outlet structure) would be present along the beach and toe of the cliff below Fort Funston within an area of approximately 150 feet or less. This would increase the overall level of visual contrast in this location and would not provide the benefit of removing an obstruction to views.

- **Increased Potential for Archaeological Impacts.** The Ocean Outlet structure associated with the Tunnel Alignment Alternative could be slightly closer to the 1882 schooner Neptune that wrecked in 1900 than the proposed Project.

- **Increased Inconsistency with Management Policies.** The development of a new tunnel and potentially a new Ocean Outlet to the south of the existing structures may conflict with NPS Management Policies for coastal processes by introducing new developments in an area subject to wave erosion or active shoreline processes when a practicable alternative (i.e., the proposed Project) is available.

- **Increased Construction Noise.** The nearest vibration-sensitive receiver to the where pile driving activities would take place is the Mission Assembly Building located in Fort Funston. The vibration levels would be above both the FTA's construction vibration and building damage thresholds for historic land uses.

## Canal Configuration Alternative

The Canal Configuration Alternative would minimize changes to the existing Canal while still allowing for some discharges to Lake Merced. This alternative would not construct the box culvert replacing the first 1,000 feet of the Canal; rather, the diversion structure described for the proposed Project would be relocated to the southern (upstream) end of the Canal. The box culvert under John Muir Drive also would be relocated and would cross under John Muir Drive close to the southern end of the Canal. The design of the diversion structure, box culvert under John Muir Drive, and Lake Merced Outlet would be approximately the same as for the proposed Project. The diversion structure would replace the first approximately 350 feet of the Canal, and the rest of the Canal would be unchanged except as needed for the Lake Merced Tunnel Portal. Under the Canal Configuration Alternative, one wetland cell of approximately 1.7 acres would be constructed, providing a reduced water treatment capacity compared to the Project. The components of the Canal Configuration Alternative could be paired with the proposed Tunnel or

could be paired with the alternative Tunnel and East Portal components described for the Tunnel Alignment Alternative.

The intent of this alternative was to reduce some of the impacts on historic resources and federally jurisdictional "other waters" associated with replacement of a portion of the existing Vista Grande Canal with a box culvert. This alternative would reduce the portion of the Vista Grande Canal and Tunnel system to be removed by approximately 1,000 feet or 15 percent of the total length of the system. It would reduce the impact on historic resources compared to the proposed Project, though not to a less-than-significant level.

Subsequent to the publication of the Draft EIR, the U.S. Army Corps of Engineers determined that the Vista Grande Canal was not considered to be federally jurisdictional "other waters," due to the age of the channel, the brick and concrete lined invert, and the relatively low physical and biological functions of the channel. Therefore, reducing impacts on this structure for the purposed of reducing impacts on "other waters" is no longer an objective of the alternatives analysis and selection process.

Although the Canal Configuration Alternative would reduce impacts on historic resources and reduce construction-related air quality and traffic impacts because less construction would occur, it would also result in additional significant and unavoidable construction-related impacts compared to the proposed Project.

The District rejects this alternative as infeasible within the meaning of CEQA. This alternative does not include Project components that will enable Daly City to achieve Project objectives for the following reasons:

- **Increased Construction Noise.** This alternative would not construct a collection box and box culvert, which would reduce the duration of construction activity. However, it would decrease the distance between the location of impact pile driving and the nearest residential receptors, resulting in noise levels up to 82 A-weighed decibels ("dBA") and exceeding the 70 dBA Leq speech interference threshold for greater than two weeks. A noise reduction of at least 12 dBA may not be achieved with mitigation, and, therefore noise impacts associated with construction-related activities could remain significant. (Potentially Significant and Unavoidable)

- **Increased Construction Vibration.** Vibration levels at the nearest residential building located approximately 200 feet south-east from the John Muir Drive crossing and diversion structure would remain significant and unavoidable after mitigation. (Significant and Unavoidable)

- **Reduced Benefit to Lake Merced.** A smaller treatment wetland would offer 0.4 acre less area for the treatment of Canal inputs to Lake Merced, as well as recirculation of lake water during low flow periods, providing a reduced benefit to Lake Merced water quality, a key objective of the Project. Additionally, the reduced wetland area would provide less habitat for wildlife than the treatment wetlands proposed under the Project.

# VI. Statement of Overriding Considerations

Pursuant to CEQA Section 21081 and CEQA Guidelines Section 15093, the District hereby finds, after consideration of the Final EIR and the evidence in the record, that each of the specific overriding economic, legal, social, technological and other benefits of the Project as set forth below independently and collectively outweighs the significant and unavoidable impacts described in Section IV and is an overriding consideration warranting approval of the Project. Any one of the reasons for approval cited below is sufficient to justify approval of the Project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the District will stand by its determination that each individual reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings, which are incorporated by reference into this Section VI.

On the basis of the above findings and the substantial evidence in the whole record of this proceeding, the District specifically finds that there are significant benefits of the proposed Project to support approval of the Project in spite of the unavoidable significant impacts, and therefore makes this Statement of Overriding Considerations. The District further finds that, as part of the process of obtaining Project approval, all significant effects on the environment from implementation of the Project have been eliminated or substantially lessened where feasible. All mitigation measures proposed in the EIR are adopted as part of this approval action. Furthermore, the District has determined that any remaining significant effects on the environment found to be unavoidable are acceptable due to the following specific overriding economic, technical, legal, social and other considerations.

The Project will have the following benefits:

> The Project will meet the Project objectives by addressing flooding potential through simultaneously increasing the Tunnel capacity and providing alternative stormwater detention in Lake Merced, which together are designed to provide protection equivalent to a 25-year, 4-hour event (with peak flows of 1,070 cubic feet per second). It also would provide a source of water to allow management of Lake Merced levels and water quality. Providing a source of water for Lake Merced water management would have the benefit of groundwater recharge to the underlying groundwater basin and increasing lake levels to benefit recreational users and long-term water quality conditions in the Lake, including the 303(d) listings for dissolved oxygen and pH. The project would also resolve the 2001 California Trout, Inc. (Cal Trout) petition to the State Water Resources Control Board. Further, the project would satisfy the Governor's mandate to beneficially reuse water resources, which is especially important during times of drought. Finally, the Project would improve recreational access and reduce litter transfer and deposition along the beach below Fort Funston by improving the Ocean Outfall and debris screening in the stormwater system, and would maximize the use of existing ROWs, easements, and infrastructure to minimize construction-related costs, habitat disturbance, and disruption to recreational users.

Having considered these benefits, including the benefits discussed in Section I above, the District finds that the benefits of the Project outweigh the unavoidable adverse environmental effects, and that the adverse environmental effects are therefore acceptable.

# Attachment A
## Mitigation Monitoring and Reporting Program

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# MITIGATION MONITORING AND REPORTING PROGRAM

## Vista Grande Drainage Basin Improvement Project

## Introduction

The California Environmental Quality Act (CEQA) requires that when a public agency makes findings pursuant to Public Resource Code Section 21081 before approving a project that would result in one or more significant impacts on the environment, the agency must adopt a reporting or monitoring program for mitigation measures incorporated into a project or imposed as conditions of approval. The program must be designed to ensure compliance during project implementation (Public Resource Code Section 21081.6).

The Council on Environmental Quality has established regulations for implementing the National Environmental Policy Act (NEPA; 40 CFR 1500-1508). NEPA requires mitigation monitoring in 40 CFR 1505.2(c), and the National Park Service (NPS) NEPA Handbook requires that the Record of Decision "state any mitigation measures that are not inherently integral to the selected action's implementation and a summary of any monitoring or enforcement programs associated with the mitigation" (Section 4.7.B).

This Mitigation Monitoring and Reporting Plan (MMRP) for the Vista Grande Drainage Basin Improvement Project (project) will be in place through all phases of the project, including design and construction, and will help ensure that project objectives are achieved. As the CEQA Lead Agency, the City of Daly City (Daly City) is responsible for verifying that the provisions of the MMRP as a whole are carried out, pursuant to Section 15097(a) of the CEQA Guidelines. The NPS, as NEPA Lead Agency and as the administrator of Fort Funston and the use authorizations for construction and operation of a portion of the Vista Grande Tunnel and the Ocean Outlet structure, also will be responsible for administering the mitigation measure compliance and monitoring program and ensuring that all parties comply with their provisions. The NPS also served as the lead federal agency for Section 106 consultation under the National Historic Preservation Act (NHPA) for the project. Daly City may delegate reporting or monitoring responsibilities to a subsidiary public agency or to a private entity such as a project contractor who accepts the delegation; however, until mitigation measures have been completed, Daly City remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program. Daly City will ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected, and will coordinate with NPS to ensure that reporting meets the needs of both agencies.

The following table identifies the mitigation measures by resource area. The table also provides the specific mitigation monitoring requirements, including implementation documentation, monitoring activity, timing, and responsible monitoring party. Verification of compliance with each measure is to be indicated by signature of the mitigation monitor, together with date and verification. Daly City and its contractor(s) shall be responsible for implementation of all mitigation measures, unless otherwise noted in the table.

The table that follows presents a compilation of mitigation measures adopted for the project by Daly City, NPS, or both lead agencies. Some mitigation measures apply only to project components outside of the jurisdiction of NPS that are solely the responsibility of Daly City and related to Daly City's CEQA compliance requirements. There are also measures that are not required under CEQA to reduce an impact to a less-than-significant level, but have been required and adopted by NPS as the NEPA lead agency; nonetheless, as project proponent, Daly City is responsible for carrying out these measures per NPS requirements. The purpose of the table is to provide a single comprehensive list of the measures that will be implemented to avoid or reduce impacts of the project on the environment, the timing for their implementation, and related monitoring and reporting requirements.

The following abbreviations are used in the table:

| | |
|---|---|
| DC | Daly City |
| CCC | California Coastal Commission |
| CDFW | California Department of Fish and Wildlife |
| CSLC | California State Lands Commission |
| NPS | National Park Service |
| RWQCB | San Francisco Bay Regional Water Quality Control Board |
| SamTrans | San Mateo County Transit District |
| SFDPW | San Francisco Department of Public Works |
| SFMTA | San Francisco Municipal Transportation Agency |
| SFRPD | San Francisco Recreation and Parks Department |
| SFPD | San Francisco Planning Department |
| SFPUC | San Francisco Public Utilities Commission |
| USACE | United States Army Corps of Engineers |
| USFWS | United Stated Fish and Wildlife Service |

| Impact No. | Impact Summary | Mitigation Measure | Monitoring and Reporting Program | | | |
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| | | | Implementation and Reporting | | Monitoring and Reporting Actions | Implementation Schedule |
| | | | Responsible Party | Reviewing and Approval Party | | |
| **Aesthetics** | | | | | | |
| **AES-3** | Project construction could result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area. | **Implement Mitigation Measure 3.4-9: Night Lighting Minimization (see details under Biological Resources, below)** | | | | |
| **NEPA Impact** | The Project could generate visual resource impacts to Fort Funston that would contribute to visual change in landscape. | **3.2-1:** The contractor shall ensure that construction-related activity at the Fort Funston staging area is as clean and inconspicuous as practical by storing materials and equipment within the proposed construction staging areas or in areas that are generally away from public view and by removing construction debris promptly at regular intervals. An 8-foot-high green screening fence shall be installed around the perimeter of the staging area. Stockpiled materials shall not exceed 8 feet in height. | 1. DC/NPS<br>2. DC (Construction Contractor)<br>3. DC/NPS | 1. DC/NPS<br>2. DC/NPS<br>3. DC/NPS | 1. Ensure that the construction contract for work at Fort Funston includes the requirements for minimizing visual impacts.<br>2. Maintain clean and inconspicuous staging areas and work areas. Install 8-foot-high green screening fence around staging areas and do not stockpile materials higher than 8 feet.<br>3. Monitor to ensure that contractor(s) implements measures in contract documents. Report non-compliance, and ensure corrective action. | 1. Design<br>2. Preconstruction/ Construction<br>3. Construction |
| **Air Quality** | | | | | | |
| **AIR-1** | The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. | **3.3-1: Dust Control Plan Implementation.** All elements of the Dust Control Plan required for work within San Francisco shall also be implemented for work occurring at Fort Funston. At a minimum this Plan shall include watering of exposed surfaces, covering of haul trucks, and sweeping of visible mud or dirt on adjacent public roads. | 1. DC<br>2. DC | 1. DC<br>2. DC/NPS | 1. Ensure that the construction contract for Fort Funston includes the same Dust Control Plan that is used for San Francisco.<br>2. Monitor to ensure that contractor(s) implements measures in contract documents. Report non-compliance, and ensure corrective action. | 1. Preconstruction<br>2. Construction |
| **AIR-2** | The Project could result in a cumulatively considerable net increase of ozone, PM10, or PM2.5 (for which the SFBAAB is in non-attainment), including releasing emissions which exceed quantitative thresholds for ozone precursors. | **Implement Mitigation Measure 3.3-1: Dust Control Plan Implementation (see details above)** | | | | |
| **Biological Resources** | | | | | | |
| **BIO-1** | Construction of the Project could have a substantial adverse effect either directly or through habitat Modifications, on plant species identified as sensitive or special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. | **3.4-1: Avoidance, minimization, and compensation for impacts to special-status plants.** A qualified botanist shall conduct appropriately timed floristic preconstruction surveys for special-status plant species with a moderate or high potential to occur in the study area, and for species known to be present in the study area, in all suitable habitat that would be potentially disturbed by the Project within the year of initiation of ground disturbance (e.g., spring/summer 2017 surveys prior to fall 2017 start of construction). Surveys on NPS managed land shall be coordinated with NPS. Surveys shall be conducted following the current CDFW protocol (CDFG, 2009). If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter to CDFW and the Project proponent, and no further mitigation will be required. If special-status plants are found during focused surveys, the following measures shall be implemented: | 1. DC (Botanist)<br>2. DC (Botanist)<br>3. DC (Botanist)<br>4. DC (Botanist) | 1. DC/NPS/CDFW<br>2. DC/CDFW/ USFWS/NPS<br>3. DC/NPS<br>4. CDFW/USFWS/ NPS | 1. Obtain and review résumé or other documentation of consulting botanist's qualifications. Conduct preconstruction surveys for special status plants in accordance with NPS and/or CDFW protocols and reporting requirements. If special status plants are found, implement appropriate measures.<br>2. Develop relocation plan and/or compensation plan if relocation is not feasible. | 1. Preconstruction<br>2. Preconstruction<br>3. Preconstruction<br>4. Post-construction |

| Impact No. | Impact Summary | Mitigation Measure | Monitoring and Reporting Program | | | |
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| | | | Implementation and Reporting | | Monitoring and Reporting Actions | Implementation Schedule |
| | | | Responsible Party | Reviewing and Approval Party | | |
| **Biological Resources (cont.)** | | | | | | |
| **BIO-1** (cont.) | | a) Information regarding the special-status plant populations shall be reported to the CNDDB, mapped, and documented in a technical memorandum provided to Daly City.<br>b) No federal- or state-listed plants have been observed or are expected to occur within the Project areas of disturbance; however, if federal- or state-listed species are identified during floristic preconstruction surveys Daly City shall mark these plants for avoidance and comply with the federal and state Endangered Species Acts through consultation with USFWS and CDFW, respectively, as described in items c and d, below.<br>c) If other special-status plant population(s) (i.e., California Rare Plant Ranked or locally significant plants) are identified during floristic preconstruction surveys and can be avoided during Project implementation, it shall be clearly marked in the field by a qualified botanist and avoided during construction activities. Before ground clearing or ground disturbance, all on-site construction personnel shall be instructed as to the species' presence and the importance of avoiding impacts to this species and its habitat.<br>d) If special-status plant populations cannot be avoided, Daly City shall consult with CDFW and/or USFWS as appropriate (and NPS on populations within NPS-managed lands) to coordinate relocation of special-status plants or compensation if relocation is not determined to be a feasible or successful option by a qualified biologist:<br>i. To the extent feasible, special-status plants that would be impacted by the Project shall be relocated within local suitable habitat. This can be done either through salvage and transplanting or by collection and propagation of seeds or other vegetative material. Any plant relocation shall be done under the supervision of a qualified biologist.<br>ii. Compensation for temporary or permanent loss of special-status plant occurrences, in the form of land purchase or restoration, shall be provided to the level acceptable to the resource agencies. Compensatory measures shall be determined on a case-by-case basis in consultation with the resource agencies. Compensation for loss of special-status plant populations typically involves the purchase and permanent stewardship of known occupied habitat or the restoration and reintroduction of populations in degraded, unoccupied habitat. Restoration or reintroduction may be located on- or offsite. In either case the City of Daly City shall prepare a Mitigation and Monitoring Plan for relocated special-status plants or to compensate for the loss of special-status plant species. The plan shall detail relocation methods or appropriate replacement ratios and methods for implementation, success criteria, monitoring and reporting protocols, and contingency measures that shall be implemented if the initial mitigation fails. The plan shall be developed in consultation with the appropriate agencies prior to the start of local construction activities. For special-status plants displaced on NPS-managed lands, the Mitigation and Monitoring Plan shall be coordinated with and approved by NPS. At a minimum, success criteria shall require any mitigation to provide equal or better habitat and populations than the impacted area.<br>e) If more than 2 years elapses between the focused, floristic preconstruction surveys of the Project site and commencement of ground disturbance activities, a final set of appropriately timed focused, floristic preconstruction botanical surveys shall be conducted and populations mapped. The results of these final surveys shall be combined with previous survey results to produce habitat maps showing habitat where the special-status plants have been observed during either of the focused floristic surveys conducted for the Project. Copies of all surveys shall be submitted to NPS for NPS-managed lands and communications with the appropriate agencies shall be coordinated with NPS for NPS-managed lands. | | | 3. Ensure that floristic preconstruction surveys are conducted again if more than 2 years elapses between initial preconstruction survey and commencement of ground disturbance.<br>4. Maintain and monitor relocation and/or restored areas for 5 years following construction and restoration activities. Submit monitoring reports to appropriate resource agencies according to protocol. | |

| Impact No. | Impact Summary | Mitigation Measure | Monitoring and Reporting Program | | | |
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| | | | Implementation and Reporting | | Monitoring and Reporting Actions | Implementation Schedule |
| | | | Responsible Party | Reviewing and Approval Party | | |
| **Biological Resources (cont.)** | | | | | | |
| **BIO-1** (cont.) | | f) If special-status plants are relocated from the Project or compensatory restoration or reintroduction of plants or seed is implemented, Daly City shall maintain and monitor the relocation sites and/or restored areas for 5 years following the completion of construction and restoration activities. Daly City shall submit monitoring reports to the resource agencies at the completion of restoration and for 5 years following restoration implementation. Monitoring reports shall include photo-documentation, planting specifications, a site layout map, descriptions of materials used, and justification for any deviations from the mitigation plan. Success criteria for restored areas after 5 years will be determined by the appropriate agencies that will approve the plans. For mitigation on NPS-managed lands, restoration plans shall be coordinated with and approved by NPS and all plants shall be propagated from material collected and grown according to NPS protocols. | | | | |
| **BIO-2** | Construction of the Project could have a substantial adverse effect either directly or through habitat modifications, on reptile species identified as special-status in local or regional plans, policies, or Regulations, or by the CDFW or USFWS. | **3.4-2a: Worker Environmental Awareness Program Training.** A project-specific Worker Environmental Awareness Program (WEAP) training shall be developed and implemented by a qualified biologist and attended by all Project personnel prior to beginning work onsite. The WEAP training shall generally include but not be limited to education about the following:<br>a) Applicable State and federal laws, environmental regulations, Project permit conditions, and penalties for non-compliance;<br>b) Special-status plant and animal species with potential to occur at or in the vicinity of the Project site, avoidance measures, and a protocol for encountering such species including a communication chain;<br>c) Preconstruction surveys and biological monitoring requirements associated with each phase of work and at each Project site as biological resources and protection measures will vary depending on the land managers (see f, below);<br>d) Known sensitive resource areas in the Project vicinity that are to be avoided and/or protected as well as approved Project work areas, access roads, and staging areas;<br>e) Best management practices (BMPs) and their location at various Project sites for erosion control, species exclusion, in addition to general housekeeping requirements; and<br>f) Specific requirements sanctioned by NPS that the Project must comply with while working on NPS-managed lands, including but not limited to:<br>i. Preconstruction surveys for and relocation of terrestrial wildlife prior to grading or vegetation removal at Fort Funston;<br>ii. Biological monitoring during Project initiation at each NPS-managed Project location (e.g., Ocean Outlet work area) to identify nearby sensitive biological resources and implement avoidance or protection measures approved by NPS staff;<br>iii. Seasonal work restrictions during wildlife breeding, nesting, or migration periods; and<br>iv. Work area exclusion methods, communication and relocation protocols if wildlife enters a work area(s) while a biological monitor is not onsite. | 1. DC<br>2. DC (Biologist)<br>3. DC (Biologist)<br>4. DC | 1. DC<br>2. DC/NPS<br>3. DC<br>4. DC | 1. Ensure that contract documents include provisions that all project personnel to attend WEAP training prior to the start of onsite work.<br>2. Ensure that training program complies with NPS requirements, where applicable.<br>3. Obtain and review résumé or other documentation of consulting biologist's qualifications. Develop worker training program and ensure that all construction personnel participate in the environmental training prior to beginning work at the job site(s). Conduct additional trainings as new workers start project work. Require workers to sign the training program sign-in sheet. Maintain file of training sign-in sheets.<br>4. Compare list of WEAP attendees with list of contracted workers. Ensure that all workers have attended the WEAP training prior to starting work. | 1. Preconstruction<br>2. Preconstruction<br>3. Preconstruction/ Construction<br>4. Preconstruction/ Construction |

| Impact No. | Impact Summary | Mitigation Measure | Monitoring and Reporting Program | | | |
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| | | | Implementation and Reporting | | Monitoring and Reporting Actions | Implementation Schedule |
| | | | Responsible Party | Reviewing and Approval Party | | |
| **Biological Resources (cont.)** | | | | | | |
| **BIO-2** (cont.) | | **3.4-2b: Avoidance and Minimization Measures for Western Pond Turtle.** During construction at the Lake Merced overflow structure in South Lake, construction at the outlet structure on the bank and within waters of Impound Lake, and during installation of the in-lake treatment infrastructure a qualified biological monitor shall be present during vegetation removal and the installation of exclusion fencing and cofferdam at Impound Lake. Also, the following measures shall be implemented:<br>a) Within one week before construction commences at these locations, a qualified biologist shall supervise the installation of exclusion fencing along the terrestrial boundaries of the work area, as the biologist deems necessary. This is to prevent western pond turtles and incidental common wildlife from entering the work area from the adjacent riparian and upland grassland habitats. The construction contractor shall install CDFW-approved species exclusion fencing, with a minimum height of 3 feet above ground surface and with an additional 4 to 6 inches of fence material buried such that species cannot crawl under the fence. Any vegetation removal in advance of exclusion fence installation shall be performed under the supervision of a qualified biologist.<br>b) A qualified biologist shall supervise the installation of a cofferdam around the inwater work area which shall be in place throughout the duration of construction on the Lake Merced overflow structure in South Lake and the Lake Merced outlet into Impound Lake (should lake water levels at the time of construction require in-water work to execute construction of either the overflow or the outlet structure). The following measures will be taken to prevent entrapment of western pond turtle and common, resident fish21 within the cofferdam:<br>i. The qualified biologist shall visually survey the area for wildlife where the cofferdam is to be installed and monitor affected waters during installation.<br>ii. As the final cofferdam piece is installed, resulting in isolation of the work zone and potential trapping of turtles and fish, the qualified biologist shall oversee initial dewatering of the area and conduct rescue-relocation effort of potentially isolated turtles and fish. Once a zero catch is recorded for three successive passes of nets, the work area can be declared free of wildlife.<br>iii. The biologist shall monitor final dewatering of the work area and rescue-relocate any final fish that are revealed by drawing water levels all the way down.<br>iv. The isolated work area can now be considered a construction zone and can be managed as such. Memo of rescue-relocation results involving western pond turtles shall be submitted to CDFW, as required by CDFW, and kept on file at construction site (in case of inspections).<br>c) The biological monitor shall monitor the exclusion fencing and inspect the cofferdam weekly to confirm proper maintenance and inspect for turtles. If turtles are found, the contractor shall halt construction in the immediate area and contact the CDFW for instructions on how to proceed. Construction may resume after approval from the CDFW.<br>d) During construction and/or maintenance activities at work sites around Lake Merced, excavations deeper than 6 inches shall have an escape ramp of earth or a wooden plank installed at a 3:1 rise, be completely covered with plywood/metal plates at the end of each day to prevent entrapment, or be surrounded by species exclusion fencing to prevent species entry; openings, such as the ends of pipes, where western pond turtles might seek refuge shall be covered when not in use; and all trash that may attract predators or hide western pond turtles shall be properly contained each day, removed from the worksite, and disposed of regularly. Following site remediation, the construction contractor shall remove all trash and construction debris from the work areas. | 1. DC<br>2. DC (Biologist)<br>3. DC (Biologist)<br>4. DC | 1. DC<br>2. DC/CDFW/ USFWS<br>3. DC<br>4. DC | 1. Ensure that contract documents include applicable avoidance and minimization measures for western pond turtles and incidental, common wildlife, including requirement for exclusion fencings.<br>2. Obtain and review résumé or other documentation of consulting biologist's qualifications. Conduct preconstruction surveys, species relocation (if appropriate and approved by CDFW and/or USFWS), and monitoring, including weekly fence inspection. Document activities in monitoring logs.<br>3. Develop worker training program and ensure that all construction personnel participate in the environmental training prior to beginning work at the job site(s). Require workers to sign the training program sign-in sheet. Maintain file of training sign-in sheets.<br>4. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action. | 1. Design<br>2. Preconstruction/ Construction<br>3. Preconstruction/ Construction<br>4. Construction |

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| **Biological Resources (cont.)** | | | | | | |
| **BIO-3** | Construction of the Project could have a substantial adverse effect either directly or through habitat modifications, on migratory birds and/or on bird species identified as special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. | **3.4-3: Nesting Bird Protection Measures** Nesting birds and their nests shall be protected during construction through the implementation of the following measures:<br>a) To the extent feasible, conduct initial ground disturbance and site grading, vegetation removal, tree removal, pile driving, and other construction activities that may compromise breeding birds or the success of their nests outside of nesting season (i.e., from January 1 – August 15). Timing of pile driving on NPS-managed lands shall be coordinated with NPS biologists.<br>b) If construction activities cannot be fully avoided during bird nesting season (i.e., from January 1 to August 15), a qualified wildlife biologist shall conduct preconstruction nesting surveys within 7 days prior to the start of construction or prior to reinitiating construction after any construction breaks of 14 days or more. Lead agencies and/or responsible agencies may, at their discretion, require shorter preconstruction survey periods as a condition of Project approval (e.g., NPS previously has required that surveys occur within less than 7 days prior to the start or re-initiation of construction in other GGNRA locations). Surveys shall be performed for the Project sites and for suitable habitat within 250 feet of the Project sites in order to locate any active passerine (perching bird) nests and within 500 feet of the Project sites to locate any active raptor (birds of prey) nests or double-crested cormorant or heron rookeries.<br>c) If active nests are located during the preconstruction bird nesting surveys, a qualified biologist shall evaluate if the schedule of construction activities could affect the active nests and if so, the following measures shall apply:<br>i. If construction is not likely to affect the active nest, it may proceed without restriction; however, a biologist shall regularly monitor the nest to confirm there is no adverse effect and may revise their determination at any time during the nesting season.<br>ii. If construction may affect the active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s) and all Project work shall halt within the buffer until it is determined no longer in use by a qualified biologist. Typically, these buffer distances are 250 feet for passerines and 500 feet for raptors; however, they may be adjusted if 1) determined to not sufficiently avoid or minimize adverse project effects in which case the buffer would be expanded, or 2) an obstruction, such as a building, is within line-of-sight between the nest and construction in which case the buffer could be reduced, if approved by CDFW. Modifying nest buffer distances, allowing certain construction activities within the buffer, modifying construction, and removing or relocating active nests shall be coordinated with the CDFW as appropriate given the nests that are found on the site. Protective measures surrounding nests found on NPS-managed lands shall be coordinated with NPS.<br>iii. Any work that must occur within established no-disturbance buffers (e.g., vegetation removal, grading, work with hand tools, etc.) around active nests shall be monitored by a qualified biologist. If adverse effects in response to Project work within the buffer are observed and could compromise the nest, work shall halt until the nest fledges.<br>d) Any birds that begin nesting within the Project area and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels so exclusion zones around nests may be reduced or eliminated in these cases as determined by the qualified biologist in coordination with respective land managers. Work may proceed around these active nests as long as they and their occupants are not directly impacted. Protective buffers may be established around such nests at any time if Project-related adverse effects to bird, nests, or nestlings are observed. | 1. DC<br>2. DC (Biologist)<br>3. DC (Biologist)<br>4. DC | 1. DC/NPS<br>2. DC/NPS<br>3. DC/CDFW/NPS<br>4. DC/NPS | 1. Ensure that construction contract includes provisions to avoid construction disturbance during the nesting season.<br>2. Obtain and review résumé or other documentation of consulting biologist's qualifications. Conduct preconstruction nesting surveys within 7 days or less prior to start of construction or reinitiation of construction activities.<br>3. Create construction mitigation and monitoring plan if active nests are located within disturbance range of project area.<br>4. Monitor to ensure contractor(s) implements measures in contact documents. Report non-compliance and ensure corrective action. | 1. Design<br>2. Preconstruction<br>3. Preconstruction/ Construction<br>4. Construction |
| | | **Implement Mitigation Measure 3.11-1 (see details under Noise and Vibration, below)** | | | | |

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| **Biological Resources (cont.)** | | | | | | |
| **BIO-4** | Project construction could have a substantial adverse effect either directly or through habitat modifications, on bats identified as special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. | **3.4-4: Avoidance and Minimization Measures for Special-Status Bats.** A preconstruction survey for special-status bats shall be conducted by a qualified biologist in advance of tree and structure removal within the project site to characterize potential bat habitat and identify active roost sites. Should the preconstruction survey find no bat habitat or bat roosting sites then no further action is required. Should potential roosting habitat or active bat roosts be found in trees and/or structures to be removed under the project, Daly City shall implement avoidance and minimization measures. These measures include, but are not limited to, the following, subject to modification by the terms of applicable permits issued by the CDFW:<br>a) Removal of trees and structures shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15; outside of bat maternity roosting season (approximately April 15 – August 31) and outside of months of winter torpor (approximately October 15 – February 28), to the extent feasible.<br>b) If removal of trees and structures during the periods when bats are active is not feasible and active bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the project site where tree and structure removal is planned, a no disturbance buffer of 100 feet shall be established around these roost sites until they are determined to be no longer active by the qualified biologist. A 100-foot no disturbance buffer is a typical protective buffer distance however may be modified by the qualified biologist depending on existing screening around the roost site (such as dense vegetation or a building) as well as the type of construction activity which would occur around the roost site.<br>c) The qualified biologist shall be present during tree and structure removal if potential bat roosting habitat or active bat roosts are present. Trees and structures with active roosts shall be removed only when no rain is occurring or is forecast to occur for 3 days and when daytime temperatures are at least 50°F.<br>d) Removal of trees with potential bat roosting habitat or active bat roost sites shall follow a two-step removal process:<br>i. On the first day of tree removal and under supervision of the qualified biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using chainsaws.<br>ii. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be removed, either using chainsaws or other equipment (e.g., excavator or backhoe).<br>e) Removal of structures containing or suspected to contain potential bat roosting habitat or active bat roosts shall be dismantled under the supervision of the qualified biologist in the evening and after bats have emerged from the roost to forage. Structures shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost. | 1. DC<br>2. DC (Biologist)<br>3. DC (Biologist) | 1. DC/CDFW<br>2. DC<br>3. DC/NPS | 1. Ensure that contract documents include applicable avoidance and minimization measures for special status bats.<br>2. Obtain and review resume or other documentation of consulting biologist's qualifications. Conduct pre-construction survey. If roosts are found, implement appropriate measures. Document activities in monitoring logs.<br>3. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action. | 1. Design<br>2. Preconstruction<br>3. Construction |
| **BIO-5** | Project construction could have a substantial adverse effect on central dune scrub, a sensitive natural community identified by the CDFW. | **3.4-5: Avoidance, minimization, and compensation for impacts to central dune scrub.**<br>a) Concurrent with focused botanical surveys, prior to establishing staging areas or beginning construction activities, areas of central dune scrub vegetation within the Project footprint and within a 50-foot buffer adjacent to the Project footprint shall be mapped by a qualified botanist using a Global Positioning System (GPS) unit with 3-meter accuracy.<br>b) To the extent feasible, Project elements shall be designed to avoid and minimize impacts to central dune scrub. This includes minimizing the Project footprint within central dune scrub or siting Project elements outside of this sensitive community. Where central dune scrub can be avoided, protective fencing shall be installed along the edge of construction areas including temporary and permanent | 1. DC<br>2. DC (Botanist)<br>3. DC (Ecologist)<br>4. DC (Botanist)<br>5. DC (Ecologist) | 1. DC<br>2. DC<br>3. DC/NPS/ CDFW/CCC<br>4. DC<br>5. DC/NPS | 1. Ensure that contract documents include applicable avoidance and minimization measures for central dune scrub.<br>2. Obtain and review resume or other documentation of consulting botanist qualifications. Conduct pre-construction survey and map areas that contain central dune scrub within project area and within a 50-foot buffer adjacent to project footprint. | 1. Design<br>2. Preconstruction<br>3. Preconstruction<br>4. Construction<br>5. Post-construction |

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| **Biological Resources (cont.)** | | | | | | |
| **BIO-5** (cont.) | | access roads where construction will occur within 50 feet of the edge of central dune scrub (as determined by a qualified botanist). The location of fencing shall be marked in the field with stakes and flagging and shown on the construction drawings.<br><br>The construction specifications shall contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, trenching, grading, or other surface-disturbing activities outside of the designated construction area. Signs shall be erected along the protective fencing at a maximum spacing of one sign per 25 feet of fencing. The signs shall state: "This area is environmentally sensitive; no construction or other operations may occur beyond this fencing. Violators may be subject to prosecution, fines, and imprisonment." The signs shall be clearly readable at a distance of 20 feet, and shall be maintained for the duration of construction activities in the area.<br><br>c) In areas where impacts to central dune scrub cannot be avoided, the Project proponent shall prepare and implement an onsite Revegetation and Restoration Plan for Central Dune Scrub, to be submitted to CDFW and CCC for review and approval. For impacts to central dune scrub on NPS-managed lands, the plan shall also be coordinated with and approved by NPS.<br><br>Restoration and revegetation shall take place onsite following Project completion and will directly restore those areas temporarily impacted. If grading has occurred in these locations to facilitate Project construction, re-contouring of the disturbed areas to pre-project conditions or similar shall be performed prior to restoration.<br><br>If permanent impacts to central dune scrub occur within the Project footprint, central dune scrub adjacent to the restored areas could be enhanced through (1) removal of invasive plants, (2) planting of local central dune scrub species, and (3) continued monitoring and maintenance to compensate for permanent losses.<br><br>The revegetation and restoration plan shall be prepared by a qualified restoration ecologist and shall include specifications for seed and propagule26 collection prior to the commencement of construction and at the appropriate phonological stage to capture reproductive structures of target central dune scrub plants. The restoration ecologist shall coordinate with a local native plant restoration nursery and NPS for restoration of central dune scrub on NPS-managed lands to either store the propagules until planting or grow the plants so that they are ready to plant once construction is complete. Restoration areas shall be monitored to assess reestablishment for 5 years or until the sites meet the success criteria determined in the plan. At a minimum, total native vegetation cover, composition, and species richness in the restored areas should be monitored and maintained until comparable with suitable reference sites. | | | 3. Obtain and review resume or other documentation of consulting restoration ecologist qualifications. Prepare and implement onsite Revegetation and Restoration Plan in areas where impacts to Central Dune Scrub cannot be avoided.<br><br>4. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action.<br><br>5. Monitor restoration areas for 5 years or until the sites meet criteria in restoration plan. | |
| **BIO-6** | Project construction would not have a substantial adverse effect on upland vegetation communities identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. | **3.4-6: Implement Tree Protection Measures and Plant Replacement Trees.**<br><br>1. A certified arborist shall perform a tree survey of the Project prior to construction to identify trees to be removed, trimmed, or retained and that shall need to be protected during construction.<br><br>2. Trees to be trimmed or retained under the Project shall be protected during construction by measures determined by the certified arborist that may include but are not limited to the following:<br><br>a. Establishing a Tree Protection Zone (TPZ) around any tree or group of trees to be retained. The formula typically used is defined as 1.5 times the radius of the dripline or 5 feet from the edge of any grading, whichever is greater. The TPZ may be adjusted on a case-by-case basis after consultation with a certified arborist.<br><br>b. Marking the TPZ of any trees to be retained with permanent fencing (e.g., post and wire or equivalent), which shall remain in place for the duration of construction activities in the area. "Keep Out" signs shall be posted on all sides of fencing. | 1. DC<br><br>2. DC (Arborist)<br><br>3. DC<br><br>4. DC | 1. DC/SFDPW<br><br>2. DC<br><br>3. SFDPW<br><br>4. DC | 1. Ensure that contract documents include tree protection and replacement measures.<br><br>2. Obtain and review resume or other documentation of certified arborist's qualifications. Conduct preconstruction tree survey to identify trees to be removed, trimmed, retained, and/or protected during construction.<br><br>3. Ensure that the contractor implements tree removal and replacement measures in accordance with SFDPW requirements.<br><br>4. Monitor to ensure that contractor implements measures in contract documents. Report noncompliance, and ensure corrective action. | 1. Design<br><br>2. Preconstruction<br><br>3. Preconstruction/ Construction<br><br>4. Construction |

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| **Biological Resources (cont.)** | | | | | | |
| **BIO-6** (cont.) | | c. Prohibiting construction-related activities, including grading, trenching, construction, demolition, or other work within the TPZ; or, if work within the TPZ is necessary, performing the work in a manner that will adequately protect the tree. No heavy equipment or machinery shall be operated within the TPZ. No construction materials, equipment, machinery, or other supplies shall be stored within a TPZ. No wires or signs shall be attached to any tree. Any modifications shall be approved and monitored by a certified arborist.<br>d. Pruning selected trees to provide necessary clearance during construction and to remove any defective limbs or other parts that may pose a failure risk. All pruning shall be completed by a certified arborist or tree worker and adhere to the Tree Pruning Guidelines of the International Society of Arboriculture.<br>3. Trees to be removed under the Project shall follow the SFDPW tree removal permit process and be replaced on the property from which trees are removed at a 1:1 ratio. Non-native trees removed shall be replaced with native tree species determined suitable for the site by a qualified biologist, horticulturist, landscape architect, or biologist in coordination with the SFDPW.<br>a. Trees shall be replaced within the first year after completion of construction, or as soon as possible in areas where construction has been completed, during a favorable time period for replanting, as determined by a qualified arborist, horticulturist, or landscape architect.<br>b. Selection of replacement sites and installation of replacement plantings shall be supervised by a qualified arborist, horticulturist, landscape architect, or landscape contractor. Irrigation of trees during the initial establishment period (generally for two to four growing seasons) shall be provided as deemed necessary by a qualified arborist, horticulturist, landscape architect, or landscape contractor.<br>c. Trees shall be planted at or in close proximity to removal sites, in locations suitable for the replacement species. The specialist shall work with the SFDPW to determine appropriate nearby off-site locations that are within the same jurisdiction from which the trees are removed if replanting within the well facility sites is precluded.<br>d. A qualified arborist, horticulturist, landscape architect, or landscape contractor shall monitor newly planted trees at least twice a year for five years. Each year, any trees that do not survive shall be replaced and monitored at least twice a year for five years thereafter. | | | | |
| **BIO-7** | Construction of the Project would have a substantial adverse effect on sensitive communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS through the introduction or spread of invasive plants. | **3.4-7a: Control Measures for Spread of Invasive Plants.** Construction best management practices shall be implemented in all construction areas to prevent the spread of invasive plants, seed, propagules, and pathogens through the following actions:<br>1) Avoid driving in or operating equipment in weed-infested areas outside of fenced work areas and restrict travel to established roads and trails whenever possible.<br>2) Avoid leaving piles of exposed soil or construction materials in areas with the potential for invasive plants (e.g., Fort Funston staging area). Non-active stockpiles shall be covered with plastic or a comparable material.<br>3) Clean tools, equipment, and vehicles before transporting materials and before entering and leaving worksites (e.g., wheel washing stations at Project site access points). Inspect vehicles and equipment for weed seeds and/or propagules stuck in tire treads or mud on the vehicle to minimize the risk of carrying them to unaffected areas. Designate areas within active construction sites for cleaning and inspections. | 1. DC/NPS<br>2. DC/NPS | 1. DC/NPS<br>2. DC/NPS | 1. Ensure that construction contract includes best management practices and control measures for the spread of invasive plants, at all project locations, with additional actions to be implemented at Fort Funston.<br>2. Monitor to ensure that contractor implements measures in contract documents. Report noncompliance, and ensure corrective action. | 1. Design<br>2. Construction |

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| **Biological Resources (cont.)** | | | | | | |
| **BIO-7** (cont.) | | The following additional actions shall be implemented at Fort Funston:<br>4) An NPS representative shall inspect vehicles and equipment prior to project initiation at any Fort Funston work area work for weed seeds and plant fragments that could colonize within the site. At Project initiation, all construction vehicles must be cleaned to remove soil and plant fragments at the Fort Funston main parking area (or other agreed to location) and vehicles or equipment that are not clean shall be rejected until clear of weed seed and plant fragments. Wheel washing stations or other methods to remove and contain seeds or other plant fragments from vehicles, equipment, boots, and tools shall be performed in designated areas.<br>5) All equipment and tools involved in soil disturbance at Fort Funston shall be disinfected using a 10% bleach or 70% isopropyl alcohol solution prior to initial use within Fort Funston or prior to returning to Fort Funston if used on another project site.<br>6) Only certified, weed-free, plastic-free imported erosion control materials (or rice straw in upland areas) shall be used at Fort Funston. | | | | |
| | | **3.4-7b: Post-Construction Treatment of Upland Areas**. Upon completion of final grading, and in order to prevent the establishment and spread of invasive plant species in upland areas temporarily disturbed by construction activities, hydroseed or broadcast seed of a native plant seed mix shall be applied to upland areas disturbed during construction. This does not include areas of central dune scrub which will be restored according to Mitigation Measure 3.4-5, Avoidance, minimization, and compensation for impacts to central dune scrub. Native plant seed mix composition shall vary between sites and depend on the surrounding vegetation community of each area.<br>Post-construction treatment of upland areas on NPS-managed lands (i.e., disturbed dune scrub) shall be coordinated with and approved by NPS and all seeds and propagules shall be collected and grown according to NPS protocols. Fertilizers shall not be used at Fort Funston post construction as they may favor invasive plant species over native perennial species.<br>Following post construction treatment of these upland areas disturbed during construction (i.e., hydroseeding, broadcast seeding, or planting), monitoring of these areas shall occur quarterly for a minimum of 2 years. If more than 50 percent of the relative plant cover of these areas is composed of invasive plant species, management actions shall be carried out to reduce the invasive plant cover and promote the native species**.** | 1. DC/NPS<br>2. DC | 1. DC/NPS<br>2. DC/NPS | 1. Ensure that construction contract includes post-construction treatment of upland areas to prevent spread of invasive plant species.<br>2. Conduct monitoring program quarterly for a minimum of 2 years following post construction treatment of upland areas. | 1. Design<br>2. Post-construction |
| **BIO-8** | Project construction could have a substantial adverse effect on wetlands and other jurisdictional waters. | **3.4-8a: Wetland Avoidance and Protection.** Access roads, work areas, and infrastructure shall be sited to avoid and minimize direct and indirect impacts to wetlands and waters to the extent feasible. Where work will occur on the Project adjacent to state and federal jurisdictional wetlands and waters, protection measures shall be applied to protect these features. These measures shall include the following:<br>1) A protective barrier (such as silt fencing) shall be erected around adjacent wetland or water features to isolate them from Project activities and reduce the potential for incidental fill, erosion, or other disturbance;<br>2) Signage shall be installed on the fencing to identify sensitive habitat areas and restrict construction activities beyond fenced limits;<br>3) No equipment mobilization, grading, clearing, storage of equipment or machinery, or similar activity shall occur at the Project site until a representative of Daly City has inspected and approved the wetland protection fencing;<br>4) Daly City shall ensure that the temporary fencing is continuously maintained until all remediation is completed; | 1. DC<br>2. DC | 1. DC<br>2. DC | 1. Ensure that construction contract includes avoidance and protection measures for wetlands and waters where work occurs adjacent to such locations.<br>2. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action. | 1. Design<br>2. Construction |

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| **Biological Resources (cont.)** | | | | | | |
| **BIO-8** (cont.) | | 5) Equipment maintenance and refueling in support of Project implementation shall be performed in designated upland staging areas and work areas, and spill kits shall be available onsite. Maintenance activity and fueling must occur at least 50 feet from jurisdictional wetlands and other waters or farther as specified in the Project permits and authorizations; and<br>6) Installation of the cofferdam around the existing outfall structure on the beach below Fort Funston and all subsequent work outside of the cofferdam once installed shall be conducted during periods of low tide, out of the Pacific Ocean, and when beach conditions provide accessible areas for equipment mobilization and storage beyond the reach of tides. Drip pans and/or liners shall be stationed beneath all equipment staged on the beach to minimize spill of deleterious materials into jurisdictional waters and spill kits shall be available within the cofferdam for easy accessibility during beach work.<br>A fencing material meeting the requirements of both water quality protection and wildlife exclusion may be used. | | | | |
| | | **3.4-8b: Compensation for Impacts to Wetlands and Riparian Habitat**. To offset temporary impacts, restoration to pre-project conditions (typically including contours, topsoil, and vegetation) shall be conducted, as required by regulatory permits (e.g., those issued by the Corps, RWQCB, CDFW, and/or CCC). To offset unavoidable permanent impacts to jurisdictional wetlands, waters, and to riparian habitat, compensatory mitigation shall be provided as required by regulatory permits. Compensation may include on-site or off-site creation, restoration, or enhancement of jurisdictional resources, or payment into an approved mitigation bank for in-kind habitat credits, as determined by the permitting agencies. Mitigation bank credits, if available, shall be obtained prior to the start of construction. On-site or off-site creation/restoration/enhancement plans must be prepared by a qualified biologist prior to construction and approved by the permitting agencies. Implementation of creation/restoration/enhancement activities by the permittee shall occur prior to Project impacts, whenever possible, to avoid temporal loss. On- or off-site creation/restoration/enhancement sites shall be monitored by Daly City for at least five (5) years to ensure their success. | 1. DC (Biologist)<br>2. DC (Biologist; Construction)<br>3. DC | 1. DC<br>2. DC/USACE/ RWQCB/ CDFW/CCC<br>3. DC | 1. Obtain and review résumé or other documentation of consulting biologist's qualifications. Prepare on-site and off-site creation/restoration/enhancement plans.<br>2. Restore wetlands, waters, and riparian habitat to pre-construction conditions. Ensure that compensatory mitigation measures for unavoidable permanent impacts comply with applicable regulatory permits.<br>3. Monitor on- or off-site restoration sites for at least 5 years. | 1. Design/ Preconstruction<br>2. Post-construction<br>3. Post-construction |
| **BIO-9** | Construction of the Project could impede movement of native resident fish species. | **Implement Mitigation Measure 3.4-2b: Avoidance and Minimization Measures for Western Pond Turtle (see details above)** | | | | |
| **BIO-10** | Construction of the Project could interfere substantially with the movement of native resident or migratory species or with established native resident or migratory corridors, or impede the use of nursery sites. | **3.4-9: Night Lighting Minimization** At construction areas set up for nighttime activity and requiring nighttime lighting, the construction contractor shall implement the following measures as long as the safety of workers is not compromised:<br>a) To the extent feasible, night construction near suitable habitat for nesting and migratory birds and roosting bats (e.g., scrub vegetation, dense wooded areas, unoccupied buildings) shall be avoided during bird nesting season (January 1 – August 15), bat maternity roosting season (approximately April 15 – August 31), and periods of winter torpor (approximately October 15 – February 28).<br>b) All construction-related lighting shall be fully shielded and focused downward to the maximum extent feasible to ensure no significant illumination passes beyond the immediate work area into surrounding habitat (e.g., central dune scrub, bluffs or the Pacific Ocean), or vertically into the sky. Lighting should be positioned around the perimeter of the work area and oriented toward construction activity rather than toward surrounding habitat. A qualified biologist shall be present at the start of nighttime activities when lights are placed to facilitate appropriate light placement and ensure surrounding wildlife habitat is not unnecessarily illuminated. Maps or other information indicating the location(s) of active nests or nesting habitat nearby nighttime work shall be available at the construction site.<br>c) Yellow, orange, or other "warm colored" light shall be used where feasible (e.g., unless required by safety regulations, pre-installed in construction equipment, etc.). | 1. DC<br>2. DC (Biologist)<br>3. DC (Biologist)<br>4. DC (Biologist)<br>5. DC | 1. DC<br>2. DC<br>3. DC<br>4. DC/CDFW/ USFWS/NPS<br>5. DC/NPS | 1. Ensure that construction contract documents include requirements for nighttime lighting minimization.<br>2. Obtain and review résumé or other documentation of consulting biologist's qualifications. Conduct pre-construction surveys for nesting birds and roosting bats within 7 days or less prior to start of construction or reinitiation of construction activities.<br>3. Ensure that a qualified biologist is present at the start of nighttime activities to ensure that lighting avoids any wildlife habitat.<br>4. If active nests or roosts are present near nighttime construction areas, monitor for disturbance during night work to determine species tolerance. Create construction mitigation and monitoring plan. | 1. Design<br>2. Preconstruction<br>3. Construction<br>4. Construction<br>5. Construction |

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| **Biological Resources (cont.)** | | | | | | |
| **BIO-10** (cont.) | | d) Construction personnel shall reduce the amount of lighting to the minimum necessary to safely accomplish the work.<br>e) Construction areas set-up for nighttime activity are subject to all of the same preconstruction surveys for nesting birds and roosting bats listed in Mitigation Measures 3.4-3 through 3.4-4.<br>f) If active bird nests or bat roosts are identified near nighttime construction areas, a qualified biologist shall monitor nests or roosts for disturbance during night work to determine species tolerance to nearby lights. Illumination methods or shielding shall be modified if disturbance is determined to have potential to compromise the nest or roost. Coordination with CDFW, USFWS, or NPS (on NPS-managed lands) shall occur as appropriate. | | | 5. Monitor to ensure that contractor(s) implements measures in contract documents. Report non-compliance, and ensure corrective action. | |
| **BIO-12** | Project operation could adversely affect central dune scrub, thimbleberry, wax myrtle, and canyon live oak scrub, and Vancouver rye grassland associated with Lake Merced. | **3.4-10a: Lake Level Management.** The Lake Merced overflow weir in South Lake shall be set at no greater than 9 feet City Datum to prevent lake water surface elevation from exceeding 9 feet City Datum during normal operations to avoid significant effects on wax myrtle scrub, Vancouver rye grassland, and eucalyptus forest. Lake Merced water levels shall be maintained at no more than 9 feet City Datum during normal operations. Should an operating WSE above 9 feet City Datum be selected or an extreme storm event requires temporary storage in Lake Merced that would increase WSE above 9 feet City Datum for more than 14 days (at which time vegetation die-off could occur), Mitigation Measure 3.4-10b is required. | 1. DC (Structural Engineer)<br>2. SFPUC<br>3. SFPUC<br>4. | 1. DC<br>2. DC<br>3. DC | 1. Establish and incorporate design criterion for the overflow weir such that excess flow above 9 feet City Datum within 14 days of an extreme storm event.<br>2. Ensure that Lake Merced overflow weir in South Lake is set at no greater than 9 feet City Datum during normal operations.<br>3. Create log for overflow weir that documents daily operational level of weir. Create automatic alert if water level is greater than 9 feet City Datum for more than 14 days, to trigger actions required in Mitigation Measure 3.4-10b. | 1. Design<br>2. Design/ Post-construction<br>3. Post-construction |
| | | **3.4-10b: Compensation for Loss of Sensitive Communities at Lake Merced.**<br>a) If 9.5 feet City Datum is selected as the target maximum WSE and Lake Merced water levels are not maintained at or below 9 feet City Datum during normal operations, or a storm event requires storage in Lake Merced that would increase WSE above 9 feet City Datum for more than 14 days for wax myrtle scrub and Vancouver rye grassland or for more than one month for blue gum eucalyptus forest, a resurvey of these sensitive vegetation communities around the Lake Merced shoreline to which a significant impact is predicted to occur (i.e., more than 10 percent loss) shall be performed post-inundation to determine actual percent loss.<br>i. The resurvey shall be performed by qualified botanists and document the postinundation conditions (extent) of the wax myrtle scrub, Vancouver rye grassland, and blue gum eucalyptus around Lake Merced between the new inundation limit (above 9 feet WSE) and 13 feet WSE City Datum. Information on the extent of these sensitive natural communities gathered during this exercise may be applied to subsequent storm events during which WSE exceeds 9 feet WSE or if an operating WSE maintains lake levels above 9 feet WSE, for use in quantifying loss of these sensitive communities at various inundation limits above 9 feet City Datum.<br>ii. Surveyors may use a combination of on-the-ground vegetation community and habitat type mapping with an assessment of current aerial imagery for informing cover estimates, similar to the mapping exercise performed in 2012 that informed the vegetation change analysis for this EIR/EIS.<br>iii. Once the updated vegetation mapping exercise is complete, the new vegetation polygons shall be compared with the 2012 vegetation polygons to quantify change. The polygon comparison shall also consider the new inundation line, to assess whether or not the change in vegetation communities is attributable to inundation or saturation. | 1. DC/SFPUC (Botanist)<br>2. DC/SFPUC (Botanist) | 1. DC<br>2. DC/CDFW/ CCC/SFRPD | 1. Obtain and review résumé or other documentation of consulting botanist's qualifications. If water levels are above 9 feet City Datum for more than 14 days, conduct a post-inundation sensitive vegetation survey in communities around the lake shoreline.<br>2. Prepare restoration plan for any sensitive vegetation communities or loss of habitat as a result of inundation. Submit to CDFW and CCC for approval. | 1. Preconstruction/ Post-construction<br>2. Preconstruction |

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| **Biological Resources (cont.)** | | | | | | |
| **BIO-12** (cont.) | | iv. If the updated mapping exercise and comparison assessment determine impacts to wax myrtle scrub, Vancouver rye grassland, or blue gum eucalyptus are less than 10 percent following inundation above 9 feet WSE, no further mitigation is required.<br>v. If the updated mapping exercise and comparison assessment determine impacts to wax myrtle scrub, Vancouver rye grassland, or blue gum eucalyptus vegetation communities are 10 percent or more, an onsite revegetation and restoration plan shall be developed for permanently impacted (inundated/lost) communities and habitat types, as detailed in part b), below.<br>b) An onsite revegetation and restoration plan shall be prepared to compensate for the affected sensitive vegetation communities and habitat lost (in excess of 10 percent) with a maintained WSE above 9 feet City Datum for 14 days or more for wax myrtle scrub and Vancouver rye grassland and for one month or more for eucalyptus forest. The plan shall be submitted to CDFW and CCC for review and approval, as appropriate. Typical compensation ratios for these communities shall be between 1:1 and 3:1 with native plant replacement quantities that shall be determined by the appropriate permitting agencies. Restoration and revegetation shall take place onsite where possible, and occur above the maximum water surface elevation to be maintained at Lake Merced so that future inundation impacts are avoided, and be implemented in coordination with SFRPD.<br>i. The revegetation and restoration plan shall be prepared by a qualified restoration ecologist and shall include specifications for seed and propagule collection prior to the commencement of construction and at the appropriate phonological stage to capture reproductive structures of target plants within each affected sensitive vegetation community or habitat type. The restoration ecologist shall coordinate with a local native plant restoration nursery to either store the propagules until planting or grow the plants so that they are ready to plant once construction is complete. Restoration areas shall be monitored to assess re-establishment for 5 years or until total native vegetation cover, composition, and species richness in the restored areas are similar to suitable reference sites.<br>ii. Individual special-status plants within the affected wax myrtle scrub and Vancouver rye grassland communities shall be mitigated according to the guidelines established in Mitigation Measure 3.4-1, Avoidance, Minimization, and Compensation for Special-Status Plants, items d and f regarding additional compensation location and revegetation and restoration plan performance standard details. Eucalyptus forest communities shall be mitigated according to guidelines established in Mitigation Measure 3.4-6, Implement Tree Protection Measures and Plant Replacement Trees, item 3 regarding appropriate replacement tree types, techniques, and performance standards. | | | | |
| **BIO-15** | Project operation could adversely affect native wildlife nursery sites associated with Lake Merced. | **Implement Mitigation Measure 3.4-10a: Lake Level Management and, if necessary, Mitigation Measure 3.4-10b: Compensation for Loss of Sensitive Communities at Lake Merced (see details above)** | | | | |
| **Cultural Resources** | | | | | | |
| **CUL-1** | The Project would cause a substantial adverse change in the significance of a historical resource because it would demolish the majority of the historic Vista Grande Canal and Tunnel. | **3.5-1: HABS/HAER Recordation.** Prior to initiation of Project construction or demolition, the City of Daly City, in consultation with the NPS, shall record the Vista Grande Canal and Tunnel in accordance with the NPS Historic American Building Survey/Historic American Engineering Record (HABS/HAER) program. This program entails: 1) documentation of the canal and tunnel through large-format black and white photographs (including the interior of the length of the tunnel), 2) preparation of a historic resources report, 3) preparation of measured drawings (or copies of original plans), and 4) archiving of the documentation package at the U.S. Library of Congress, the City of Daly City, Golden Gate park archives, and other local repositories such as public libraries. The specific HABS/HAER requirements of the Vista Canal and Tunnel will be further detailed in consultation with the NPS Pacific Western Region's HABS/HAER coordinator. | 1. DC/NPS | 1. NPS | 1. Record Vista Grande Canal and Tunnel with the NPS Historic American Building Survey/Historic American Engineering Record (HABS/HAER) program. | 1. Preconstruction |

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| **Cultural Resources (cont.)** | | | | | | |
| **CUL-1** (cont.) | | **3.5-2: Public Interpretation.** Prior to the completion of the Project, the City of Daly City, in coordination with the NPS, shall prepare a public interpretation package that may entail interpretive materials, including but not limited to signage, brochures, videos, historical narrative, or other printed or web-based methods of explaining the historical and engineering significance of the Vista Grande Canal and Tunnel to the general public. | 1. DC/NPS | 1. NPS | 1. Prepare a public interpretation package explaining the historical and engineering significance of the Vista Grande Canal and Tunnel. | 1. Preconstruction/ Construction/ Post-construction |
| **CUL-2** | The Project would cause a substantial adverse change in the significance of an archaeological resource, including shipwrecks. | **3.5-3: Inadvertent Discovery of Archaeological Resources or Shipwrecks.** The following measures shall be implemented should construction activities result in the inadvertent discovery of an archaeological resource:<br>a) Prior to construction, a training session on the recognition of the types of archaeological resources that could be encountered and the procedures to be followed if they are found shall be presented to Project construction personnel by a qualified professional archaeologist. If prehistoric or historic-period archaeological resources or shipwrecks are encountered, all construction activities within 50 feet shall halt. If the resource is located within San Francisco, the San Francisco Planning Department also shall be notified.<br>b) If the resource is located on federally administered lands, NPS also shall be notified. Abandoned shipwrecks, archaeological sites, and historic resources in submerged lands of California are under the jurisdiction of the California State Lands Commission (CSLC). In the case of an inadvertent discovery of a submerged archaeological site, shipwreck, or related artifacts, the applicable jurisdictional agency shall also contact and initiate consultation with the CSLC staff within two business days of such discovery.<br>c) The qualified archaeologist shall inspect the find within 24 hours of discovery and consult with the applicable jurisdictional agency and the culturally affiliated Native American group or groups.<br>d) If the find is determined to be a historical resource according to CEQA Guidelines or a historic property that meets the National Register listing criteria at 36 CFR 60.4, the archaeologist, in consultation with the applicable jurisdictional agency and the culturally affiliated Native American group shall determine whether preservation in place is feasible. This may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement.<br>e) If preservation in place is not feasible, Daly City and the qualified archaeologist shall prepare and implement an Archaeological Research Design and Treatment Plan (ARDTP). Daly City, the qualified archaeologist, agencies with jurisdiction in the location(s) of the discovered resource(s), and the culturally affiliated Native American group(s, if applicable) shall meet to determine the scope of the ARDTP. The ARDTP shall identify a program for the treatment and recovery of important scientific data contained within the portions of the archaeological resources located within the Project Area of Potential Effects (APE); preserve any significant historical information obtained; and identify the scientific/historic research questions applicable to the resources, the data classes the resource is expected to possess, and how the expected data classes shall address the applicable research questions.<br>f) Treatment for most archaeological resources shall consist of (but is not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource(s) to be impacted by the Project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals. The results of the investigation shall be documented in a technical report that provides a full artifact catalog, analysis of items collected, results of any special studies conducted, and interpretations of the resource(s) within a regional and local context. All technical documents shall be placed on file at the Northwest Information Center of the California Historical Resources Information System. | 1. DC<br>2. DC (Archeologist)<br>3. DC (Archeologist)<br>4. DC (Archeologist) | 1. DC<br>2. DC<br>3. SFPD/NPS/ CSLC/Native American Groups<br>4. DC/SFPD/NPS/ CSLC/Native American Groups | 1. Ensure that the contract documents include measures related to archeological discoveries or shipwrecks.<br>2. Obtain and review resume of qualified archeologist. Conduct training session with construction crew regarding types of archeological resources that could be encountered and procedures to follow.<br>3. Inspect any find within 24 hours and notify appropriate jurisdictional authority if archeological resources are discovered. Determine whether find can be preserved in place.<br>4. Prepare ARDTP if preservation cannot be made in place. Conduct treatment of resource as necessary. | 1. Design<br>2. Preconstruction<br>3. Construction<br>4. Construction |

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| **Cultural Resources (cont.)** | | | | | | |
| **CUL-3** | Project construction would disturb human remains. | **3.5-4: Inadvertent Discovery of Human Remains.** The following measure shall be implemented should construction activities result in the inadvertent discovery of human remains:<br><br>The treatment of any human remains and associated or unassociated funerary objects discovered during soil-disturbing activities shall comply with applicable state laws. Such treatment shall include stopping work within 50 feet of the discovery and immediate notification of the County Coroner. In the event of the coroner's determination that the human remains are Native American, the coroner shall notify the Native American Heritage Commission, which shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code §5097.98). The qualified archaeologist, Daly City, the landowner of the property on which the discovery is made, and the MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects (CEQA Guidelines §15064.5[d]). The agreement shall take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. Public Resources Code Section 5097.98 allows 48 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the landowner of the property on which the discovery is made shall follow Public Resources Code Section 5097.98(b), which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance." | 1. DC<br>2. DC (Archeologist)<br>3. DC (Archeologist) | 1. DC<br>2. County Coroner/ Native American Heritage Commission/ Most Likely Descendant<br>3. DC/NPS | 1. Ensure that Contract Documents include measures related to discovery of human remains.<br>2. If potential human remains are encountered, mobilize an archaeologist to confirm existence of human remains. If human remains are confirmed, perform required coordination and notifications.<br>3. Monitor to ensure that the contractor implements measures in contract documents including insuring that all potential human remains are reported as required and that contractor suspends work in the vicinity. Report noncompliance and ensure corrective action. | 1. Design<br>2. Construction<br>3. Construction |
| **Geology and Soils** | | | | | | |
| **GEO-1** | Construction, operation, and maintenance of the Project could expose people or structures to potential substantial adverse effects involving strong seismic ground shaking and/or seismic-related ground failure. | **3.6-1a:** Prior to final Project design, a qualified engineer and/or geologist shall perform an inspection to map the size, location, orientation, and patterns of cracks and any crack offsets to provide additional insight into possible tunnel deformation related to faulting, and to help better assess the potential impact of the Serra Fault Zone during future seismic events on the San Andreas Fault, as recommended in the geotechnical investigation conducted by Treadwell & Rollo (2013). | 1. DC (Engineer/ Geologist) | 1. DC | 1. Obtain and review a resume for a qualified engineer/geologist. Inspect tunnel to map details of any cracks or deformation related to faulting. | 1. Design |
| | | **3.6-1b:** Daly City and/or its contractor(s) shall retain inspectors working under the auspices of a California-licensed geotechnical engineer to be present on the Project site during excavation, grading, and general site preparation activities to monitor the implementation of the recommendations specified in this measure.<br>• Project construction shall be in conformance with CBC seismic design requirements and the OSHA Excavation and Trenching standard (29 CFR 1926.650) for the Project area.<br>• When and if needed, the geotechnical engineer shall provide structure-specific geologic and geotechnical recommendations prior to and during construction that shall be documented in a report to be appended to the Project's previous geotechnical reports and approved by the City of San Francisco Department of Building Inspection. | 1. DC (Geotechnical engineer)<br>2. DC (Geotechnical engineer)<br>3. DC (Geotechnical engineer) | 1. DC<br>2. DC<br>3. City of San Francisco Department of Building Inspection | 1. Obtain and review resume for CA-licensed geotechnical engineer. Monitor excavation and grading and general site preparation activities for seismic requirement standards.<br>2. Ensure that project construction/project area conforms with CBC seismic design requirements and OSHA Excavation and Trenching standard (29 CFR 1926.650)<br>3. Prepare report outlining structure specific geologic and geotechnical recommendations made prior to and during construction, if needed. | 1. Design/ Preconstruction<br>2. Construction<br>3. Post-construction |
| | | **3.6-1c:** Project foundations in the vicinity of Boring B-3 shall be constructed using cast-in-place drilled piers, micropiles, or another equivalent deep foundation system such as auger-cast or displacement piles or a torqued-in piling system for deep foundations. | 1. DC<br>2. DC | 1. DC<br>2. DC | 1. Ensure that construction contract includes the appropriate boring equipment for Boring B-3.<br>2. Monitor to ensure that contractor(s) implements measures in contract documents. Report non-compliance, and ensure corrective action. | 1. Design<br>2. Construction |

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| **Geology and Soils (cont.)** | | | | | | |
| **GEO-2** | The Project could result in substantial soil erosion or the loss of topsoil. | **3.6-2:** Annual maintenance shall include the following: inspection and flushing to make sure that subdrain pipes are free of debris and are in good working order; and inspection of subdrain outfall locations to verify that introduced water flows freely through the discharge pipes and that no excessive erosion has occurred. | 1. DC<br>2. DC (Construction Contractor)<br>3. DC | 1. DC<br>2. DC<br>3. DC | 1. Ensure that contract documents include requirements for annual maintenance of subdrain pipes and subdrain outfall locations.<br>2. Prepare annual maintenance logs that include measures to ensure that subdrain pipes are free of debris, are in good working order, that water can flow freely from discharge pipes, and that no excessive erosion has occurred.<br>3. Review annual maintenance logs and monitor maintenance to ensure that contractor(s) implements measures in contract documents. Report non-compliance, and ensure corrective action. | 1. Design<br>2. Construction/ Post-construction<br>3. Post-construction |
| **GEO-3** | The Project may be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project. | **3.6-3a:** The following recommendations regarding site preparation, foundations, retaining walls, seismic design, and other geotechnical aspects provided in the geotechnical report shall be incorporated into this Project.<br>• Areas that will include improvements, including new below-grade structures, concrete flatwork and slabs-on-grade, shall be cleared and grubbed of all vegetation, and the site shall be stripped of organic topsoil containing over three percent organic matter. Stripped materials shall be removed from the site or stockpiled for later use in landscaped areas, if approved by the architect.<br>• After stripping the existing soil subgrade, areas to receive fill or other improvements shall be scarified, moisture-conditioned, and compacted. The subgrade shall provide a firm, non-yielding surface. The soil subgrade shall be kept moist until it is covered by improvements. If soft or loose soil is encountered after stripping, the unsuitable material shall be excavated and replaced with suitable fill material.<br>• All materials to be used as general engineered fill or backfill, including on-site soil, shall be free of organic material, be non-hazardous and non-corrosive, contain no large rocks or lumps, and have low expansion potential, and be approved by the geotechnical engineer.<br>• Fill shall be placed in horizontal lifts, moisture-conditioned to above the optimum moisture content and compacted.<br>• Fill placed beneath exterior slabs-on-grade/flatwork and other below-grade structures shall also be moisture-conditioned. From a geotechnical standpoint, concrete flatwork/exterior slabs and other below-grade structures can be cast directly on soil subgrade. If Class 2 aggregate base is used beneath flatwork/slabs or structures it shall be compacted as necessary.<br>• Backfill for utility trenches and other excavations is also considered fill, and shall be compacted according to the recommendations previously presented. Jetting of trench backfill shall not be permitted. Special care shall be taken when backfilling utility trenches in pavement areas.<br>• Temporary slopes in loose to medium dense sand shall not be steeper than 2:1 (horizontal to vertical) for slopes up to 15 feet in height. Slopes higher than 15 feet shall be analyzed for stability. Temporary slopes in dense sand shall not be steeper than 1.5:1. If the sides of proposed excavations cannot be sloped back, then shoring shall be provided. | 1. DC<br>2. DC (Construction Contractor)<br>3. DC (Construction Contractor)<br>4. DC (Geotechnical Engineer)<br>5. DC (Shoring Designer)<br>6. DC (Shoring Designer)<br>7. DC (Construction Contractor)<br>8. DC (Geotechnical Engineer)<br>9. DC (Construction Contractor)<br>10. DC | 1. DC<br>2. DC<br>3. DC<br>4. DC<br>5. DC<br>6. DC<br>7. DC<br>8. DC<br>9. DC<br>10. DC | 1. Ensure that contract documents include the recommendations provided in the geotechnical report.<br>2. Incorporate recommendations regarding site preparation, foundations, retaining walls, seismic design, and other geotechnical aspects from the geotechnical report into the Project.<br>3. Determine the length of tiebacks.<br>4. Observe and evaluate tieback testing and test results.<br>5. Evaluate required penetration depth of soldier piles to ensure they have sufficient axial capacity to support the vertical load acting on the piles.<br>6. Determine appropriate factor of safety to use an internally braced soil-cement shoring wall.<br>7. Select and design the dewatering system.<br>8. Check the design of the proposed dewatering system prior to installation.<br>9. Monitor for signs of subsidence while dewatering is in progress.<br>10. Monitor to ensure that contractor(s) implements measures in contract documents. Report non-compliance, and ensure corrective action. | 1. Design<br>2. Design<br>3. Design/ Preconstruction<br>4. Preconstruction/ Construction<br>5. Design/ Preconstruction/ Construction<br>6. Design/ Preconstruction/ Construction<br>7. Construction<br>8. Preconstruction/ Construction<br>9. Construction<br>10. Construction |

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| **Geology and Soils (cont.)** | | | | | | |
| **GEO-3** (cont.) | | • A flexible shoring system shall be designed to resist lateral earth pressures and other pressures as described in the geotechnical investigations. Traffic or surcharge loads shall be added to the active pressures.<br>• The contractor shall be responsible for determining the actual length of tiebacks required to resist the lateral earth and water pressures imposed on the temporary retaining systems.<br>• The geotechnical engineer shall observe tieback testing.<br>• The geotechnical engineer shall evaluate the tieback test results and determine whether the tiebacks are acceptable.<br>• The shoring designer shall evaluate the required penetration depth of the soldier piles. The soldier piles shall have sufficient axial capacity to support the vertical load acting on the piles, if any.<br>• The geotechnical investigation anticipates an internally braced soil-cement shoring wall may be used for shoring in some areas where tiebacks aren't needed. The shoring designer shall determine the appropriate factor of safety to use.<br>• During excavation, the groundwater shall be lowered and maintained at that level until sufficient structural weight or a foundation system is available to resist the hydrostatic uplift forces on the bottom of the foundation and/or slab-on-grade. The selection and design of the dewatering system shall be the responsibility of the contractor. The geotechnical engineer shall check the design of the proposed dewatering system prior to installation.<br>• Adjacent improvements shall be monitored by the contractor for signs of subsidence including vertical movement and groundwater levels outside the excavation shall be monitored while dewatering is in progress. | | | | |
| | | **3.6-3b:** Prior to final Project design, additional slope stability studies, including updated geologic mapping and slope stability analysis, shall be performed by a California-licensed geotechnical engineer to evaluate potential for weakened blocks that could become loose during outlet construction or tunneling. Also, stability analyses shall be completed to evaluate the potential impacts of bluff failure on the new outlet structure to be constructed at the base of the cliff. If potential for weakened blocks to become loose or for bluff failure to occur during construction, the study shall include design specifications and construction methods, such as use of temporary structural supports, to avoid such effects. Recommendations from the studies shall be incorporated into the final Project design and construction methods, and implemented by Daly City and/or its contractors. | 1. DC (Geotechnical engineer)<br>2. DC (Geotechnical engineer) | 1. DC<br>2. DC | 1. Obtain and review resume of CA-licensed geotechnical engineer. Conduct additional slope stability studies to evaluate potential stability issues during outlet construction and tunneling.<br>2. Incorporate recommendations from geotechnical slope studies into the final Project design and construction methods. | 1. Design<br>2. Design |
| **GEO-4** | The proposed Project would not create substantial risks to life or property due to expansive or corrosive soils. | **3.6-4:** Daly City and/or its contractors shall ensure that all micropiles used for the Project are double-corrosion protected. | 1. DC<br>2. DC (Construction Contractor)<br>3. DC | 1. DC<br>2. DC<br>3. DC | 1. Ensure that contract documents include provisions for contractors to double-corrosion protect micropiles.<br>2. Ensure that micropiles are double-corrosion protected.<br>3. Monitor to ensure that contractor(s) implements measures in contract documents. Report non-compliance, and ensure corrective action. | 1. Design<br>2. Construction<br>3. Construction |

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| **Greenhouse Gas Emissions and Climate Change** | | | | | | |
| **GHG-1** | Project construction and operation would generate GHG emissions. | **3.7-1: Greenhouse Gas Emission Reduction.** Daly City and/or its contractor(s) shall implement the following measures to reduce greenhouse gas emissions from construction:<br>1) On-road vehicle idling time shall be minimized and shall not exceed a 5-minute maximum. Additionally, off-road engines shall not idle for longer than 5 minutes, per Section 2449(d)(3) of Title 13, Article 4.10, Chapter 9 of the California Code of Regulations. Clear signage of this requirement shall be provided for construction workers at all access points to construction areas.<br>2) Utilize B20 biodiesel for generator fueling to reduce greenhouse gas emissions of generator operation by approximately 20 percent.<br>3) Following finalization of project design and construction phasing, but prior to the start of construction activities, Daly City and/or its contractors shall use best available modeling tools to estimate annual greenhouse gas emissions resulting from construction. After accounting for the use of B20 biodiesel as under Item 2, Daly City shall purchase carbon offsets in the amount that construction emissions would exceed the greenhouse gas emissions significance threshold of 1,100 MT/CO2-equivalent per year from an accredited source. | 1. DC (Construction Contractor)<br>2. DC (Construction Contractor)<br>3. DC | 1. DC<br>2. DC<br>3. DC | 1. Ensure that contract documents include the requirements for reducing greenhouse gases.<br>2. Ensure that contract documents include the requirements for reducing greenhouse gases.<br>3. Ensure that the preparer(s) of estimates implement appropriate modeling tool. Ensure that carbon offsets are purchased prior to construction commencement. | 1. Design<br>2. Design<br>3. Preconstruction |
| **Hazards and Hazardous Materials** | | | | | | |
| **HAZ-2** | Project construction could result in a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. | **3.8-1: Health and Safety Plan.** The construction contractor(s) shall prepare and implement a site-specific Health and<br>Safety Plan in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation, grading, and construction activities. The Health and Safety Plan shall include, but is not limited to, the following elements:<br>• A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;<br>• Training for hazard recognition, including visual and olfactory cues;<br>• Specified personal protective equipment and decontamination procedures, if needed;<br>• Emergency procedures, including route to the nearest hospital;<br>• Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release, and retaining a qualified environmental firm to perform sampling and remediation. | 1. DC<br>2. DC (Construction Contractor)<br>3. DC | 1. DC<br>2. DC<br>3. DC | 1. Ensure that contract documents include the requirement for preparing a health and safety plan.<br>2. Prepare and submit a health and safety plan and verify that it includes information cited in contract documents.<br>3. Monitor to ensure that the contractor(s) implements measures in the contract documents and health and safety plan. Report noncompliance, and ensure corrective action. | 1. Design<br>2. Preconstruction<br>3. Preconstruction/ Construction |
| **HAZ-3** | Project construction would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. | **Implement Mitigation Measure 3.15-1: Construction Traffic Management Plan** (see details under Transportation and Traffic, below) | | | | |

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| | | | Responsible Party | Reviewing and Approval Party | | |
| **Hydrology and Water Quality** | | | | | | |
| **HYD-1** | Project construction could violate water quality standards and/or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality. | **3.9-1: Implement Cofferdam Dewatering BMPs for In-Water Work.** If dewatering discharge produced during construction of the Lake Merced outlet and overflow structures is not discharged to the sewer system, a requirement shall be included in construction specifications that requires the construction contractor(s) to implement standard BMPs developed and approved by Daly City for the treatment of sediment-laden water produced during cofferdam dewatering activities. BMPs could include discharging water through filtration media, such as filter bags or a similar filtration device, or allowing the cofferdam dewatering discharge to infiltrate into the soil. If infiltration is used, application of the dewatering discharge shall be conducted at a rate and location that does not allow runoff into Lake Merced or drainage conveyances, such as storm drains, and does not cause flooding or runoff to adjacent properties. The dewatering discharge shall also be conducted at a rate that does not allow ponding, unless the ponding is a result of implementing BMPs to reduce the velocity of the flow and occurs within constructed containment, such as an excavation or berm with no outlet. The discharge must also be applied at a sufficient distance from building foundations or other areas that could be damaged from ground settling or swelling. Alternatively, and if feasible, the filtered dewatering effluent could be used for construction dust suppression. Any BMPs developed and implemented shall remove sediment in a manner sufficient to meet the Water Quality Objective for turbidity as specified in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). Specifically, receiving waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses and increases in turbidity related to dewatering discharges shall not be greater than 10 percent in areas where natural turbidity is greater than 50 Nephelometric Turbidity Units (NTU). | 1. DC<br>2. DC<br>3. DC | 1. DC<br>2. DC<br>3. DC | 1. Ensure that contract documents include measures requiring the implementation of BMPs designed to treat sediment-laden water produced during cofferdam activities if dewatering discharge is not discharged to sewer system.<br>2. Review contractor's Dewatering Plan to ensure that it meets Water Quality Objectives for turbidity as specified in the Water Quality Control Plant for the Basin Plan.<br>3. Monitor to ensure that the contractor implements measures in Dewatering Plan, report noncompliance, and ensure corrective action within timelines specified in contract. | 1. Design<br>2. Preconstruction<br>3. Construction |
| **HYD-9** | The Project could conflict with plans, policies, or regulations related to alteration of coastal landforms or processes adopted for the purpose of avoiding or mitigating an environmental effect. | **3.9-2: Avoidance and Minimization of Conflicts with California Coastal Act and NPS Management Policies.** The final design of the Ocean Outlet structures must minimize conflicts with the applicable Coastal Act requirements that new development: 1) be designed to eliminate or mitigate adverse effects on local shoreline sand supply (Section 30235); and 2) assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs (Section 30253). In order to minimize conflicts with these policies, Daly City shall undertake the following steps when developing final engineering designs of the Ocean Outlet structures:<br>1) A California licensed engineer shall prepare a study consistent with the methods for assessing sea level rise in Coastal Development Permits detailed in the California Coastal Commission's Sea Level Rise Policy Guidance (California Coastal Commission, 2015). The study shall identify Project design elements that may conflict with California Coastal Act Policies (Sections 30235 and 30253) and recommend revisions to bring the final design into conformity with these guidelines and policies (Study). At a minimum, the Study shall:<br>a) Use the range of projections recommended by the CCC's 2015 Sea Level Rise Policy Guidance in evaluating potential sea level rise effects over the Project planning horizon.<br>b) Incorporate, and update as necessary, information concerning baseline conditions at the Ocean Outlet, and future projections (both with and without sea level rise) concerning:<br>i) Bluff erosion rates and patterns;<br>ii) Sand supply sequestering as a result of Project design;<br>iii) Storm effects relating to coastal hazards (e.g., scour, wave runup, flooding;<br>iv) Potential for exposure of Project infrastructure over the Project lifetime, and<br>v) Potential cumulative effects of the Project on the identified coastal process elements above with applicable existing or future projects. | 1. DC/NPS<br>2. DC (Engineer)<br>3. DC (Engineer)<br>4. DC (Engineer)<br>5. DC/NPS | 1. DC/NPS<br>2. DC/NPS/CCC<br>3. NPS/CCC<br>4. DC/NPS/CCC<br>5. DC/NPS | 1. Ensure that contract and design documents for the Ocean Outlet minimize conflicts with applicable Coastal Act requirements.<br>2. Obtain and review resume or other documentation of a CA-licensed engineer's qualifications. Prepare a study that is consistent with the methods for assessing sea level rise in Coastal Development Permits and the CCC's Sea Level Rise Policy Guidance.<br>3. Prepare report of study's findings and submit final report and design to NPS and CCC for review.<br>4. Ensure that recommendations made by NPS and CCC are incorporated into design and specifications and implemented during construction, operation, and maintenance of project.<br>5. Monitor to ensure the contractor(s) implements measures in contract documents. Report noncompliance and ensure corrective action. | 1. Design<br>2. Design<br>3. Design<br>4. Design/ Construction/ Post-Construction<br>5. Construction |

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| **Hydrology and Water Quality (cont.)** | | | | | | |
| **HYD-9** (cont.) | | c) Include recommendations for final engineering design, construction methods and materials for all aspects of the Ocean Outlet development, including the site preparation, building foundations, and design, to remedy any identified coastal process or coastal resource related impacts. Also the Study shall identify final engineering design recommendations and alternatives to minimize identified risks relating to hazards, such as geologic instability. Design recommendations and alternatives shall be protective of coastal resources throughout the expected life of the Project and include recommendations to minimize hazard exposure where avoidance is infeasible, including steps to relocate or modify the development as needed to prevent risks to the Project structures or to coastal resources. Such alternatives could include, but would not be limited to, alteration of the proposed wing walls or other outlet structure components to ensure final Project design is consistent with the following California Coastal Act policies to the extent feasible:<br>a. Section 30235 Consistency: Construction of Project features that alter natural shoreline processes shall be approved only if it is determined by the CCC that such a design is required to serve a coastal dependent use or to protect existing structures or public beaches in danger from erosion, and that final design minimizes adverse impacts on local shoreline sand supply as compared to current and future baseline conditions.<br>b. Section 30253 Consistency: Final design shall be approved only if it is determined that such a design minimizes contribution to erosion, geologic instability, or destruction of the site or surrounding area, and if the Project's necessary protective devices minimize the alteration of natural landforms.<br>2) The Study's findings shall be presented in a report, which shall be reviewed, signed, and stamped by the professional engineer in charge. The report shall be subject to technical review by Daly City, the NPS, SFPUC, and the CCC staff.<br>3) The report and final design shall be submitted to the NPS and CCC for review and approval to ensure any inconsistencies with NPS and CCC policy requirements are resolved. Recommendations in the approved study shall be incorporated into the design and construction specifications and shall be implemented during construction and operation and maintenance of the Project as applicable. | | | | |
| **Land Use and Planning** | | | | | | |
| **LU-1** | The project could conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. | **Implement Mitigation Measure 3.9-2: Avoidance and Minimization of Conflicts with California Coastal Act and NPS Management Policies** (see details under Hydrology and Water Quality, above) | | | | |

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| **Noise and Vibration** | | | | | | |
| **NOI-1** | Project construction could temporarily expose persons to or generate noise levels in excess of local noise ordinances or create a substantial temporary increase in ambient noise levels. | **3.11-1:** The applicant shall require construction contractors to implement the following measures:<br>• Equipment and trucks used for Project construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible).<br>• Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for Project construction shall be hydraulically or electrically powered where feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible.<br>• Stationary construction noise sources shall be located as far from adjacent residential receptors as possible. Stationary noise-generating construction equipment shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, and/or controlled using other measures to the extent this does not interfere with construction purposes. Specifically, any generator used on site shall be muffled using an acoustical enclosure. | 1. DC<br>2. DC (Construction Contractor)<br>3. DC | 1. DC<br>2. DC<br>3. DC | 1. Ensure that contract documents include language requiring preparation of a noise control plan that includes best available noise control techniques.<br>2. Ensure that the noise control plan is prepared in accordance with the contract documents.<br>3. Monitor to ensure that the contractor(s) implements noise control requirements and ensure corrective action within timelines specified in contract. | 1. Design<br>2. Preconstruction<br>3. Construction |
| | | **3.11-2:** To further address potential nuisance impacts of Project construction, construction contractors shall implement the following:<br>• Signs shall be posted at all construction site entrances to the property upon commencement of Project construction, for the purposes of informing all contractors/subcontractors, their employees, agents, material haulers, and all other persons at the applicable construction sites, of the basic requirements of Mitigation Measures 3.11-1.<br>• Signs shall be posted at the construction sites that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number in the event of problems.<br>• An onsite complaint and enforcement manager shall respond to and track complaints and questions related to noise. | 1. DC<br>2. DC (Construction Contractor)<br>3. DC | 1. DC<br>2. DC<br>3. DC | 1. Ensure that contract documents include requirements for the posting of signs that inform all construction personnel of the requirements of the noise control plan, permitted construction days/hours, and contact information.<br>2. Designate project liaison responsible for responding to noise complaints and enforcing noise control requirements. Ensure that liaison's name and phone number is included on posted notices. As necessary, develop a reporting program for tracking complaints received and for documenting their resolution.<br>3. Monitor to ensure that required signs are posted and that complaints are tracked and responded to in a timely manner. Report noncompliance and ensure corrective action. | 1. Design<br>2. Preconstruction<br>3. Construction |
| **NOI-2** | Project construction could result in the exposure of persons to or generation of excessive groundborne Vibration or groundborne noise levels. | **3.11-3:** To address the vibration impact at the Missile Assembly Building located in Fort Funston, Daly City shall require construction contractors to implement the following vibration monitoring measures:<br>1) A pre-construction visual survey of the Missile Assembly Building shall be conducted and existing conditions shall be documented by use of photography or video. A qualified and licensed structural engineer and architectural historian shall be retained to assess whether the potentially affected structure(s) could withstand a vibration level above the "stop work" threshold of 0.12 in/sec PPV (90 VdB). If this assessment results in a higher threshold for potential damage than 0.12 in/sec PPV (90 VdB), that higher threshold shall be used in lieu of 0.12 in/sec PPV (90 VdB) for purposes of part 2.<br>2) The construction contractor shall monitor vibration levels during tunnel construction, especially during impact pile driving at the temporary construction shaft. If construction vibration levels measured at the Missile Assembly Building exceed 0.12 in/sec PPV (90 VdB) or the higher threshold determined in part 1 if applicable, construction shall be halted and other feasible construction methods shall be employed to reduce the vibration levels below the standard threshold. Alternative construction methods may include sonic or vibratory pile drivers. | 1. DC<br>2. DC (Structural Engineer; Architectural Historian)<br>3. DC | 1. DC<br>2. DC<br>3. DC | 1. Ensure contract documents include vibration monitoring measures to address vibration impacts at the Missile Assembly Building located in Fort Funston.<br>2. Obtain and review resume or other documentation of consulting licensed structural engineer and architectural historian's qualifications. Assess whether vibrations would affect the structure.<br>3. Monitor to ensure that contractor(s) implements vibration monitoring measures in contract documents. Report noncompliance and ensure corrective action. | 1. Design<br>2. Design<br>3. Construction |

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| **Geologic and Paleontological Resources** | | | | | | |
| **PAL-1** | The Project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature. | **3.12-1: Inadvertent Discovery of Paleontological Resources.** Prior to construction, a training session on the recognition of the types of paleontological resources that could be encountered and the procedures to be followed if they are found shall be presented to Project construction personnel by a qualified professional paleontologist. A qualified paleontologist shall be on call when excavations disturb the Merced and Colma Formations. In the event that potential vertebrate fossils are discovered, work shall cease at the location and a qualified paleontologist shall evaluate the discovery, as described below. For areas of excavation on federally managed lands that would disturb the Merced formation, NPS shall determine the NPS paleontologist or NPS-approved private paleontologist that will perform this monitoring. Consistent with NPS guidance, disturbance within other formations present in Fort Funston shall be monitored for fossils by trained Project construction personnel unless the NPS paleontologist determines that monitoring by a qualified paleontologist is necessary.<br><br>If potential vertebrate fossils are discovered by construction crews or a paleontological monitor, all earthwork or other types of ground disturbance within 50 feet of the find shall stop immediately and the monitor shall notify Daly City, as well as the NPS if the potential fossil is found on federal lands. Work shall not resume until a qualified professional paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the qualified paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The qualified paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and the activities occurring on the site. If treatment and salvage is required, recommendations shall be consistent with NPS guidelines (on federal land), SVP 1995 guidelines (on non-federal land), and currently accepted scientific practice, and shall be subject to review and approval by Daly City, and by NPS if the potential fossil is found on federal land. If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection [e.g., the University of California Museum of Paleontology (UCMP)], and may also include preparation of a report for publication describing the finds. Daly City shall ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means. | 1. DC/NPS<br>2. DC/NPS (Paleontologist)<br>3. DC/NPS (Paleontologist)<br>4. DC/NPS | 1. DC/NPS<br>2. DC/NPS<br>3. DC/NPS<br>4. DC/NPS | 1. Ensure that contract documents include measures related to paleontological discoveries.<br>2. Obtain and review resume of qualified paleontologist. Conduct training session with construction crew regarding types of paleontological resources that could be encountered and procedures to follow.<br>3. Evaluate potential discoveries according to jurisdictional requirements, and if confirmed, treat and prepare fossil materials appropriately. Prepare report of find, as necessary.<br>4. Monitor to ensure contractor(s) implements paleontological measures in contract documents if discovery occurs. Report noncompliance and ensure corrective action. | 1. Design<br>2. Preconstruction<br>3. Construction<br>4. Construction |
| **Transportation and Traffic** | | | | | | |
| **TRA-1** | Project construction would cause temporary increases in traffic volumes on area roadways, which could cause substantial conflicts with the performance of the circulation system, but would not conflict with applicable plans, ordinances, or policies pertaining to the performance of the circulation system. | **3.15-1: Construction Traffic Management Plan** Daly City and/or its contractor(s) shall prepare and implement a Construction Traffic Management Plan in accordance with professional traffic engineering standards to show methods for maintaining traffic flows on roadways and access to recreational resources directly affected by Project construction, which shall include, at a minimum, the following requirements:<br>a) Develop circulation plans to minimize impacts on local street circulation; use flaggers and/or signage to guide vehicles through and/or around the construction zone (including, as needed, for trucks turning into and out of Fort Funston at the intersection of SR 35 and Fort Funston Road). Circulation plans may be modified during construction, based on observed conditions.<br>b) Identify truck routes and, to the extent possible, use haul routes that minimize truck traffic on local roadways and residential streets.<br>c) Schedule truck trips to minimize trips during the peak morning and evening commute hours, and the peak hours of arrivals and departure from Fort Funston, to the extent possible.<br>d) Provide sufficient staging areas for trucks accessing construction zones to minimize disruption of access to adjacent land uses, particularly within residential neighborhoods.<br>e) Maintain pedestrian and bicycle access and circulation during Project construction where safe to do so. If construction activities encroach on a bicycle lane, post warning signs that indicate bicycles and vehicles are sharing the lane. | 1. DC<br>2. DC (Construction Contractor)<br>3. DC | 1. DC<br>2. DC/SFMTA/ NPS/SamTrans<br>3. DC | 1. Ensure that contract documents include requirements of Construction Traffic Management Plan.<br>2. Prepare and implement Construction Traffic Management Plan with requirements cited in contract documents. Coordinate with Caltrans regarding construction traffic use of SR 35.<br>3. Monitor to ensure the contractor(s) implements measures in the contract documents and Construction Traffic Management Plan. Report noncompliance, and ensure corrective action. | 1. Design<br>2. Preconstruction/ Construction<br>3. Construction |

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| **Transportation and Traffic (cont.)** | | | | | | |
| **TRA-1** (cont.) | | f) Maintain public safety and access on the beach by posting notices and maps at and around the project site and on Golden Gate National Recreation Area's website prior to and during construction, informing the public about when and where public access could be restricted and about alternative access points, if applicable; and incorporate measures on the beach to protect the public during construction activities.<br>g) Store all equipment and materials in designated contractor staging areas on or adjacent to the worksite, in such a manner to minimize obstruction of traffic.<br>h) Implement roadside safety protocols and provide advance "Road Work Ahead" warning signs and speed control (including signs informing drivers of state-legislated double fines for speed infractions in a construction zone) to achieve required speed reductions for safe traffic flow through the work zone.<br>i) Coordinate construction with facility owners or administrators of sensitive land uses such as police and fire stations (including all fire protection agencies), transit stations, hospitals, and schools, as well as Fort Funston. Notify facility owners or operators in advance of the timing, location, and duration of construction activities.<br>j) Provide residents adjacent to Project construction areas (e.g., on Avalon Drive and Westmoor Avenue) with information regarding Project construction in their area, including anticipated start and end of construction activities.<br>k) Coordinate construction with local traffic agencies, SFMTA, NPS, and SamTrans, to minimize disruption and arrange for the temporary relocation of bus stops in work zones as necessary. | | | | |
| **TRA-5** | Project construction would result in increased wear-and-tear on the designated haul routes. | **3.15-2:** Daly City, San Francisco, and the National Park Service shall enter into an agreement prior to construction that shall detail pre-construction conditions and the post-construction requirements of a roadway rehabilitation program. Daly City and/or its contractors shall repair roads damaged by construction to a structural condition equal to that which existed prior to construction activity. | 1. DC/SF/NPS<br>2. DC (Construction Contractor)<br>3. DC/SF/NPS | 1. DC/SF/NPS<br>2. DC<br>3. DC/SF/NPS | 1. Ensure that contract documents include pre-construction conditions and post-construction requirements of a roadway rehabilitation program.<br>2. Repair roads damaged by construction to a structural quality equal to preconstruction activity.<br>3. Monitor to ensure the contractor(s) implements measures in the contract documents. Report noncompliance, and ensure corrective action. | 1. Design<br>2. Post-construction<br>3. Post-construction |