

EXECUTIVE SUMMARY

ES.1 Project Overview and Background

The City of Daly City (Daly City) is proposing the Vista Grande Drainage Basin Improvement Project (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 Fort Funston, part of the Golden Gate National Recreation Area (GGNRA), which is operated under the authority of the National Park Service (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.

As noted, the proposed Project has two primary, mutually supporting objectives: to address storm-related flooding that periodically occurs as a result of inadequate storm drainage capacity in Daly City's Vista Grande Canal and Tunnel, and to augment water surface levels and manage water quality in San Francisco's Lake Merced. Both Daly City and San Francisco independently are proposing to address these respective issues. The proposed Project and alternatives meeting these objectives represent an approach that would jointly address both jurisdictions' proposed improvements while minimizing disturbance, maximizing the beneficial reuse of stormwater, and reconnecting a significant portion of the Lake Merced watershed to Lake Merced.

ES.2 Agency Roles and Objectives

ES.2.1 CEQA Project Objectives

Daly City has identified the following objectives for the proposed Project:

- 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 (see Appendix A) 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 rights-of-way (ROWs), easements, and infrastructure to minimize construction-related costs, habitat disturbance, and disruption to recreational users.

ES.2.2 National Park Service Federal Action

The federal action NPS is considering is whether to approve, approve with conditions, or deny Daly City's application for a special use permit for construction of the Tunnel and associated structures (e.g., Ocean Outlet and wing walls), and staging areas within NPS land; whether to amend existing easement(s) to accommodate the proposed expanded Tunnel and associated structures within the easement(s) and to clarify the rights and obligations of the parties to the easement(s); and possibly whether to issue a right-of-way permit or other authorization to accommodate any portions of the Project that lie outside of the easement(s) (e.g., wing walls).

The purpose and need for the Project is to alleviate flooding in the Vista Grande Drainage Basin and Canal and provide a sustainable source of water for management of Lake Merced water levels and quality, and to ensure that the portion of the Project within federally managed lands, if authorized, is constructed, operated, and maintained in a manner that is consistent with the protection and enhancement of resources, values, and uses of lands and waters under federal jurisdiction. In considering whether to authorize such activities, the federal government needs to engage in transparent, integrated, and informed decision-making and ensure that any final decision conforms to applicable laws and regulations. In achieving the purpose and need for the Project, NPS's objectives for implementation of the Project include the following:

- Avoid, minimize, or mitigate environmental impacts to park natural and cultural resources;
- During construction, ensure the health and safety of park visitors and staff, maintain access to and through Fort Funston, and minimize impacts to the visitor experience;
- Permanently improve public access along the beach below Fort Funston; and
- Minimize impacts on park assets and sustain or restore all park assets (e.g., facilities, features, grounds) to pre-construction or better conditions.

ES.3 Proposed Project and Alternatives

ES.3.1 Comparison of Alternatives

In addition to the proposed Project, this EIR/EIS considers two action alternatives consisting of variations on the design and siting of Project components, and one No Project/No Action alternative. Each of the following is described in detail in Chapter 2, *Project and Alternatives*:

Proposed Project. 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 North San Mateo County Sanitation District Wastewater Treatment Plant (WWTP) 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 ROW to accommodate the replacement Ocean Outlet structure.

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.

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.

No Project/No Action Alternative. Under the No Project/No Action 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.

ES.3.2 CEQA Environmentally Superior Alternative and NEPA Lead Agency Preferred Alternative

CEQA Guidelines Section 15126.6(e)(2) requires an EIR to identify an environmentally superior alternative. If the environmentally superior alternative is the No Project/No Action Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. In general, the environmentally superior alternative is defined as that alternative with the least adverse impacts to the project area and its surrounding environment.

The No Project/No Action Alternative would avoid all impacts of the Project and would not create any new significant impacts of its own. However, improvements that address the storm-related flooding in the Vista Grande Drainage Basin would not be implemented. The Basin would continue to flood during storm events, resulting in flooding of residential areas along John Muir Drive. The CEQA Guidelines define the environmentally superior alternative as that alternative with the least adverse impacts to the project area and its surrounding environment. Determining an environmentally superior alternative is difficult because of the many factors that must be balanced. Although this Draft EIR/EIS preliminarily identifies an environmentally superior alternative, it is possible that, with additional information received in or developed during the project approval process, Daly City could choose to balance the importance of each impact area differently or reach a different conclusion. Daly City preliminarily has identified the proposed Project as the environmentally superior alternative.

Under NEPA, the “preferred alternative” is a preliminary indication of the Lead Agency’s preference of action among the Proposed Action and alternatives. A NEPA Lead Agency may select a preferred alternative for a variety of reasons, including the agency’s priorities, in addition to the environmental considerations discussed in the EIS. Although the Lead Agency may identify a preferred alternative in the Draft EIS, the NPS has not yet identified its preference of action among the Proposed Action and alternatives, and will identify the preferred alternative in the Final EIR/EIS in accordance with NEPA (40 CFR 1502.14(e)).

ES.4 Environmental Analysis

Table ES-1 summarizes the environmental impacts of the alternatives compared to those of the proposed Project under CEQA. This table presents the significant impacts of the proposed Project as well as less-than-significant impacts whose severity would be different under the alternatives

than under the proposed Project. Table ES-1 does not include less-than-significant impacts of the proposed Project that would have the same significance determination and/or impact severity as those of the Canal Configuration Alternative or Tunnel Alignment Alternative. Similarly, **Table ES-2** summarizes the environmental impacts that would occur as a result of the proposed Project and alternatives by environmental impact under NEPA. The focus of the table is on moderate to major adverse effects, but also lists some minor and negligible effects as well.

ES.5 Areas of Controversy

Comments were received during the scoping process for the Project. The scoping process is described and public input received during that process is provided in Appendix B, *Scoping Memorandum*. Based on input received from agencies, members of the public and others, areas of controversy related to the Project include:

Aesthetics: Concerns related to changes in views from the beach at Fort Funston associated with the Ocean Outlet structure. The long-term visual effects of the rehabilitated Ocean Outlet structure are expected to be beneficial as described in Section 3.2, Aesthetics.

Biological Resources: Concerns related to impacts on fish in Lake Merced and on special-status plants and wildlife, and impacts associated with raising lake water levels. See Section 3.4, Biological Resources.

Cultural Resources: Concerns associated with the loss of historic structures (e.g., Vista Grande Canal and Tunnel system). See Section 3.5, Cultural Resources.

Hydrology and Water Quality: Concerns associated with water quality in Lake Merced, and with maintaining Lake Merced surface water levels. See Section 3.9, Hydrology and Water Quality. In addition, concerns with maintaining Lake Merced surface water levels under the proposed project, while the SFPUC's San Francisco Groundwater Supply Project and Groundwater Storage and Recovery Project are under operation, influencing the underlying groundwater basin. See Section 3.9.6.4, discussing the cumulative operational effects of these projects on lake levels.

Recreation: Concerns related to public uses of the Project area, particularly Fort Funston and Lake Merced, and the potential impacts of the Project on public uses such as boating, swimming, surfing, and bird watching. See Section 3.13, Recreation.

**TABLE ES-1
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA**

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Aesthetics				
<p>Day and Nighttime Views</p>	<p>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.</p> <p>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.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The Tunnel Alignment Alternative would include the same types of temporary aboveground components and activities during construction as the proposed Project, and the methods and duration required to construct the Tunnel Alignment Alternative would be similar to the Tunnel portion of the proposed Project. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct the Canal Configuration Alternative would not change compared to the proposed Project. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>No physical component of the proposed Project would be constructed, and there would be no impacts to aesthetic resources. (No Impact)</p>
<p>Scenic Vista, Scenic Resource, Visual Character, and Visual Quality</p>	<p>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.</p> <p>The design character of the treatment wetland cells would integrate the treatment wetlands and associated infrastructure with the existing visual environment of the Project site.</p> <p>The Project would reduce the contrast of the Ocean Outlet and the surrounding scenery to a moderately low level by reducing the size of the structure and would provide better views of the area.</p> <p>Approximately every 25 years, the Ocean Outlet would be reconstructed and appear similar to the initial rehabilitation of the structure, and long-term impacts would be as described for the proposed structure. (Less than Significant)</p>	<p>Increased</p> <p>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. Visual conditions would remain similar to existing conditions in the vicinity of the existing outlet structure; with an additional outlet that would be moved as bluff erosion continues, as under the proposed Project. (Less than Significant)</p>	<p>Similar</p> <p>The design character of the treatment wetland cell would integrate the treatment wetland and associated infrastructure with the existing visual environment of the Project site. (Less than Significant)</p>	<p>No Impact</p> <p>Ongoing periodic maintenance activities would not be noticeable or intrude on the visual character and quality of the Project area. Future uncontrolled flood events could damage public facilities and private properties in the vicinity of Lake Merced, which could degrade the visual character and quality of the area. (No Impact)</p>

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Air Quality				
Air Quality Standards	<p>Impact AIR-1: The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The Tunnel Alignment Alternative would have similar construction characteristics of the Project. The construction methods and duration to construct this alternative would not change compared to the Tunnel portion of the Project, except that a micro tunnel boring machine would be used in place of a mini excavator. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>The Canal Configuration Alternative would have many similar construction characteristics of the Project. The construction methods for Canal Configuration Alternative would not change compared to the Project, except that the collection box and box culvert would not be constructed. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>No construction emissions would be generated by this alternative. Regarding operational emissions, there would be no changes to the existing operations of the project site. (No Impact)</p>
Cumulative Emissions Impacts	<p>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.</p> <p>Construction activities would result in cumulatively significant fugitive dust emissions. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The Tunnel Alignment Alternative would have similar construction characteristics of the Project. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The Canal Configuration Alternative would have many similar construction characteristics and nearly identical methods as the Project. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>No construction emissions would be generated and operational emissions would not change. (No Impact)</p>
Biological Resources				
Special-Status Plant Species	<p>Impact 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.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on sensitive and special-status plant species and sensitive vegetation communities are expected. Similar to the Project, potential impacts to special-status plants and the sensitive natural community central dune scrub would be significant. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on special-status plant species and sensitive vegetation communities are expected. Like with the Project, potential impacts to special-status plants and the sensitive natural community central dune scrub would be significant. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to sensitive natural and special-status plants in the study area. (No Impact)</p>

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Biological Resources (cont.)				
Special-Status Reptile Species	<p>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.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on special-status animal species are expected. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on special-status animal species are expected. Like the Project, construction of the Lake Merced outlet structure on the bank and within waters of Impound Lake could adversely affect western pond turtle. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to special-status reptile species in the study area. (No Impact)</p>
Migratory Bird Species and Special-Status Bird Species	<p>Impact 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.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on migratory and special-status bird species are expected. Like with the Project, adverse effects on special-status and migratory birds associated with construction during the breeding birds season, the use of nighttime lighting, and increased noise and visual disturbance would be significant. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to this alternative would not change substantially compared to the proposed Project, and similar impacts on migratory and special-status bird species are expected. Like with the Project, adverse effects on special-status and migratory birds associated with construction during the breeding birds season, the use of nighttime lighting, and increased noise and visual disturbance would be significant. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to special-status bird species in the study area. (No Impact)</p>
Special-Status Bat Species	<p>Impact BIO-4: Construction of the Project 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.</p> <p>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</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on bat species are expected. Adverse effects on special status bats associated with tree removal and structure modification would be similar to the Project. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on bat species are expected. Adverse effects on special-status bats associated with tree removal and structure modification would be similar to the Project. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to special-status bat species in the study area. (No Impact)</p>

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Biological Resources (cont.)				
Special-Status Bat Species (cont.)	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. (Less than Significant with Mitigation)			
Central Dune Scrub	<p>Impact BIO-5: Project construction could have a substantial adverse effect on central dune scrub, a sensitive natural community identified by the CDFW.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on sensitive vegetation communities are expected. Similar to the Project, removal of central dune scrub vegetation would be considered a significant impact. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on sensitive vegetation communities are expected. Like with the Project, potential impacts to the sensitive natural community central dune scrub would be significant. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to a sensitive natural community in the study area. (No Impact)</p>
Upland Vegetation Communities	<p>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.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on upland vegetation communities are expected. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on upland vegetation communities are expected. During construction, trees could be removed within the Project area during construction. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to an upland vegetation community in the study area. (No Impact)</p>

**TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA**

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Biological Resources (cont.)				
Sensitive Communities	<p>Impact 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.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on sensitive vegetation communities are expected. Like with the Project, work areas, staging areas, and access roads cleared of non-sensitive upland vegetation could contribute to the spread of invasive plants and introduce new invasive plants to the Project study area through earth moving, transport of vehicles, equipment and materials, and unanticipated sediment dispersal during rain events. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on sensitive vegetation communities are expected. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to a sensitive community in the study area. (No Impact)</p>
Wetlands and Other Jurisdictional Waters	<p>Impact BIO-8: Project construction could have a substantial adverse effect on wetlands and other jurisdictional waters.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on potential federally jurisdictional wetlands and other waters are expected. As under the Project, there are no impacts to potential jurisdictional features from the tunnel component itself. Impacts to potential jurisdictional waters associated with rehabilitating the existing Ocean Outlet would not exceed those described under the Project. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on potential federally jurisdictional wetlands and other waters are expected. Impacts to potential jurisdictional wetlands and waters associated with constructing the new facilities at Lake Merced would be less than those described under the Project due to the reduced modifications to the Canal. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to wetlands and other jurisdictional waters in the study area. (No Impact)</p>
Native Resident Fish Species	<p>Impact BIO-9: Construction of the Project could impede movement of native resident fish species.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on fish species are expected. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on fish species are expected. Like the Project, construction of the Lake Merced outlet structure on the bank and within waters of Impound Lake could adversely affect common fish species. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to fish species in the study area. (No Impact)</p>

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Biological Resources (cont.)				
Native Resident or Migratory Species	<p>Impact 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.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on resident and migratory species are expected. Like with the Project, adverse effects on special-status and migratory birds associated with construction during the breeding birds season, the use of nighttime lighting, and increased noise and visual disturbance would be significant. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The methods and duration to construct this alternative would not change substantially compared to the proposed Project, and similar impacts on resident species, migratory species, and wildlife nursery sites are expected. Like with the Project, adverse effects on special-status and migratory birds associated with construction during the breeding bird season, the use of nighttime lighting, and increased noise and visual disturbance would be significant. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to resident species, migratory species, and wildlife nursery sites in the study area. (No Impact)</p>
Lake Merced Plant Species	<p>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.</p> <p>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). (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The Tunnel Alignment Alternative would not change operational impacts on special-status plant species associated with Project implementation. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>Operation of the Canal Configuration Alternative would result in similar impacts on special-status plant species as the proposed Project. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to special-status plant species in the study area. (No Impact)</p>

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Biological Resources (cont.)				
Lake Merced Wildlife	<p>Impact BIO-15: Project operation could adversely affect native wildlife nursery sites associated with Lake Merced.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>The Tunnel Alignment Alternative would not change operational impacts on wildlife nursery sites associated with Project implementation. (Less than Significant with Mitigation)</p>	<p>Increased</p> <p>Operation of the Canal Configuration Alternative would result in similar impacts on wildlife nursery sites as the proposed Project. A smaller treatment wetland would offer 0.4 acre less habitat to wildlife than the treatment wetlands proposed under the Project. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>With the No Project/No Action Alternative there would be no change to wildlife nursery sites in the study area. (No Impact)</p>
Cultural and Paleontological Resources				
Historical Resource	<p>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 Vista Grande Canal and Tunnel.</p> <p>Construction would substantially affect the vast majority of the historic Vista Grande Canal and Tunnel as an entire drainage system. (Significant and Unavoidable)</p>	<p>Decreased</p> <p>The Canal improvements under the proposed Project paired with the Tunnel Alignment Alternative would adversely affect most of the Vista Grande Canal and Tunnel system as a whole, though less than the proposed Project.</p> <p>The Canal Configuration Alternative paired with the Tunnel Alignment Alternative would adversely affect most of the Vista Grande Canal and Tunnel as a whole. (Significant and Unavoidable)</p>	<p>Decreased</p> <p>The Tunnel improvements under the proposed Project paired with the Canal Configuration Alternative would have an adverse impact on most of the Vista Grande Canal and Tunnel system as a whole, though less than the proposed Project.</p> <p>The Canal Configuration Alternative paired with the Tunnel Alignment Alternative would adversely affect most of the Vista Grande Canal and Tunnel as a whole. (Significant and Unavoidable)</p>	<p>No Impact</p> <p>No new construction or ground-disturbing activities would occur under the No Project/No Action Alternative. (No Impact)</p>
Archaeological Resource	<p>Impact CUL-2: The Project could cause a substantial adverse change in the significance of an archaeological resource, including shipwrecks.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Increased</p> <p>Similar to the proposed Project, ground disturbing activities for the Tunnel Alignment Alternative would have the potential to uncover previously unknown archaeological resources. 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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>Similar to the proposed Project, ground disturbing activities for the Canal Configuration Alternative would have the potential to uncover previously unknown archaeological resources. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>No new construction or ground-disturbing activities would occur under the No Project/No Action Alternative. (No Impact)</p>

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Cultural and Paleontological Resources (cont.)				
Human Remains	<p>Impact CUL-3: Project construction could disturb human remains.</p> <p>Project construction could result in direct impacts to previously undiscovered human remains during earthmoving activities. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>Similar to the proposed Project, ground disturbing activities for the Tunnel Alignment Alternative would have the potential to uncover human remains. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>Similar to the proposed Project, ground disturbing activities for the Tunnel Alignment Alternative would have the potential to uncover human remains. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>No new construction or ground-disturbing activities would occur under the No Project/No Action Alternative. (No Impact)</p>
Geology and Soils				
People and Structures	<p>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.</p> <p>Holocene slip was observed in trench exposures of the Serra Fault and geotechnical investigation concluded there is a high potential for rupture as a result of faulting within the proposed tunnels alignment.</p> <p>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.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>As with the Project, structural damage to facilities could occur as a result of strong seismic groundshaking.</p> <p>As with the Project, the Tunnel Alignment Alternative also has the potential for seismic-related ground failure resulting from liquefaction and lateral spreading. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>Structural damage to facilities could occur as a result of strong seismic groundshaking and/or seismic-related ground failure.</p> <p>As with the Project, the Canal Configuration Alternative has the potential to encounter liquefaction and lateral spreading. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>Under the No Project/No Action Alternative, improvements that address the storm-related flooding in the Vista Grande Drainage Basin would not be implemented. The Project site would continue to experience existing levels of geologic and seismic hazards. (No Impact)</p>
Soil Erosion and Loss of Topsoil	<p>Impact GEO-2: The Project could result in substantial soil erosion or the loss of topsoil.</p> <p>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</p>	<p>Similar</p> <p>As with the Project, the Tunnel Alignment Alternative construction could result in erosion from wind and stormwater runoff. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>As with the Project, the Canal Configuration Alternative construction could result in erosion from wind and stormwater runoff. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>Under the No Project/No Action Alternative, improvements that address the storm-related flooding in the Vista Grande Drainage Basin would not be implemented. Daly City would continue to use the existing ocean outlet structure at Fort Funston which would continue to contribute to erosion of the cliff</p>

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Geology and Soils (cont.)				
Soil Erosion and Loss of Topsoil (cont.)	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. (Less than Significant with Mitigation)			face where it is located. The Project site would continue to experience existing levels of geologic and seismic hazards. (No Impact)
Unstable Soil	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. (Less than Significant with Mitigation)	Similar As with the Project, excavations could trigger slope failures that could result in landslides, slumps, soil creep, or debris flows. (Less than Significant with Mitigation)	Similar As with the Project, excavations could trigger slope failures that could result in landslides, slumps, soil creep, or debris flows. (Less than Significant with Mitigation)	No Impact Under the No Project/No Action Alternative, improvements that address the storm-related flooding in the Vista Grande Drainage Basin would not be implemented. The Project site would continue to experience existing levels of geologic and seismic hazards. (No Impact)
Life and Property	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 corrode the micropiles. (Less than Significant with Mitigation)	Similar Like with the Project, the area soils have a mild to moderate corrosion potential. (Less than Significant with Mitigation)	Similar As with the Project, the area soils have a mild to moderate corrosion potential. (Less than Significant with Mitigation)	No Impact Under the No Project/No Action Alternative, improvements that address the storm-related flooding in the Vista Grande Drainage Basin would not be implemented. The Project site would continue to experience existing levels of geologic and seismic hazards. (No Impact)
Hazards and Hazardous Materials				
Public and Environment	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 UXO, which would pose a safety risk to workers on-site. (Less than Significant with Mitigation)	Similar Like with the Project, construction activities could expose the environment, public or construction personnel to contaminated soils or groundwater or to UXO. (Less than Significant with Mitigation)	Similar Like with the Project, construction activities could expose the environment, public or construction personnel to contaminated soils, or groundwater. (Less than Significant with Mitigation)	No Impact Under the No Project/No Action Alternative, the Project would not be implemented; therefore, no hazards or hazardous materials-related impacts would occur. The Project site would continue to experience existing levels of public safety hazards. (No Impact)

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Hazards and Hazardous Materials (cont.)				
Emergency Response Plan and Emergency Evacuation Plan	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. (Less than Significant with Mitigation)	Similar Construction activities associated with the Tunnel Alignment Alternative would result in impacts on emergency access similar to those identified for the Project. (Less than Significant with Mitigation)	Similar Like the Project, construction could interfere or disrupt the evacuation route along John Muir Drive, as identified in San Francisco's Emergency Response Plan, due to the presence of large, slow-moving trucks that may cause delays. (Less than Significant with Mitigation)	No Impact Under the No Project/No Action Alternative, the Project would not be implemented; therefore, no hazards or hazardous materials-related impacts would occur. The Project site would continue to experience existing levels of public safety hazards. (No Impact)
Hydrology and Water Quality				
Water Quality Standards	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. (Less than Significant with Mitigation)	Similar The construction methods and duration to construct this alternative would not substantially differ as compared to the Tunnel portion of the proposed Project, and impacts associated with the Canal portion would either be identical to the proposed Project or the Canal Configuration Alternative. (Less than Significant with Mitigation)	Similar As with the proposed Project, construction of the Lake Merced overflow structure in South Lake and the outlet structure on the bank and within waters of Impound Lake could result in discharges of pollutants to Lake Merced directly. (Less than Significant with Mitigation)	No Impact Under the No Project/No Action Alternative, the Project would not be implemented; therefore, no construction related water quality impacts would occur. (No Impact)
Alteration of Coastal Landforms or Processes	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 alteration of coastal processes would result in a potentially significant impact relating to coastal processes such as bluff retreat and alterations to the beach profile. In addition, the proposed Project could conflict with California Coastal Act Sections 30235 and 30253 and/or NPS Management Policies (described in Section 3.9.2.1) should bluff erosion rates and patterns alter as a result of the proposed Project, including a local decrease of the	Similar Under this alternative, the new tunnel would terminate in a new or rehabilitated Ocean Outlet structure. If the option to connect to the existing Ocean Outlet location is selected, construction and long-term maintenance of the Ocean Outlet structure would be as described for the proposed Project. However, under this alternative, a new tunnel would be constructed to meet the terminus of the existing tunnel at the current extent of the bluff face. As the bluff recedes, both the existing abandoned-	Similar Impacts associated with the Canal portion would either be identical to the proposed Project or the Tunnel Alignment Alternative. (Significant and Unavoidable)	No Impact Under the No Project/No Action Alternative, the Project would not be implemented; therefore, no alteration of coastal processes or conflicts with plans, policies, or regulations would occur. (No Impact)

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Hydrology and Water Quality (cont.)				
Alteration of Coastal Landforms or Processes (cont.)	sediment availability at the site due to diminished sand supply. (Significant and Unavoidable)	in-place tunnel and the new tunnel would become exposed, resulting in an adverse effect related to alterations of coastal landforms and coastal processes. Also, the exposure and rehabilitation of structures under this alternative could conflict with the California Coastal Act Section 30235 and 30253 and/or NPS Management Policies. (Significant and Unavoidable)		
Land Use				
Land Use Policies	Impact LU-1: 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. (Significant and Unavoidable)	Increased 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. (Significant and Unavoidable)	Similar Impacts associated with the Canal portion would either be identical to the proposed Project or the Tunnel Alignment Alternative. (Significant and Unavoidable)	No Impact Because the Project would not be implemented, no potential conflict with the Coastal Act or NPS Management Policies would occur. (No Impact)
Noise and Vibration				
Temporary Noise	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. (Less than Significant with Mitigation)	Similar The location of the tunnel shaft would be somewhat farther from the nearest sensitive receptor compared to Tunnel portion of the Project. However, the location of the Lake Merced Portal would be farther from the nearest residential receiver than under the proposed Project. (Less than Significant with Mitigation)	Increased Impact ALT-NOI-1: 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 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)	No Impact Because no new construction would occur under the No Project/No Action Alternative, no construction noise would be generated by this alternative, which would result in no impact. (No Impact)

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Noise and Vibration (cont.)				
Groundborne Vibration and Noise Levels	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. (Less than Significant with Mitigation)	Increased 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. (Less than Significant with Mitigation)	Increased Impact ALT-NOI-2: Project-related 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)	No Impact Because no new construction would occur under the No Project/No Action Alternative, no ground-borne vibration would be generated by this alternative, which would result in no impact. (No Impact)
Paleontological Resources				
Paleontological Resource, Paleontological Site, Unique Geological Feature	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. (Less than Significant with Mitigation)	Similar Similar to the proposed Project, ground disturbing activities for the Tunnel Alignment Alternative would have the potential to uncover previously unknown paleontological resources or damage unique geologic features. (Less than Significant with Mitigation)	Similar Similar to the proposed Project, ground disturbing activities for the Canal Configuration Alternative would have the potential to uncover previously unknown paleontological resources or damage unique geologic features. (Less than Significant with Mitigation)	No Impact Because no new construction or ground-disturbing activities would occur under the No Project/No Action Alternative, undiscovered paleontological resources would not be encountered. (No Impact)
Transportation and Traffic				
Plans, Ordinances, and Policies	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. (Less than Significant with Mitigation)	Similar Similar to the Project, the increase in traffic volume on local roads would be noticeable, especially due to the slower movements of trucks compared to passenger vehicles, and the increased local congestion/delay and potential conflicts involving trucks is considered to be a significant impact. (Less than Significant with Mitigation)	Decreased Daily traffic generated by construction workers and haul/delivery trucks accessing the work site would be somewhat less than for the proposed Project. (Less than Significant with Mitigation)	No Impact Under the No Project/No Action alternative, no physical component of the proposed Project would be constructed, and there would be no construction-related impacts to existing transportation conditions on area roadways. (No Impact)

TABLE ES-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER CEQA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Transportation and Traffic (cont.)				
Designated Haul Routes	<p>Impact TRA-5: Project construction would result in increased wear-and-tear on the designated haul routes.</p> <p>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. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>Like with the Project, the use of large trucks to transport equipment and material to and from the Project work site(s) for construction could affect road conditions and driving safety on the designated haul routes by increasing the rate of road wear, which would be considered a significant impact. (Less than Significant with Mitigation)</p>	<p>Similar</p> <p>Like with the Project, the use of large trucks to transport equipment and material to and from the Project work site(s) for construction could significantly affect road conditions and driving safety on the designated haul routes by increasing the rate of road wear, which would be considered a significant impact. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>Under the No Project/No Action alternative, no physical component of the proposed Project would be constructed, and there would be no construction-related impacts to existing transportation conditions on area roadways. (No Impact)</p>

**TABLE ES-2
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER NEPA**

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Aesthetics	<p>The extended presence of construction equipment and activities at the Fort Funston staging area would be readily noticeable from passive recreation areas adjacent to this site and from trails. Also, views of the dunes in this area would be temporarily replaced by equipment and fencing. Furthermore, construction activities on the beach would be visible to hang gliders passing overhead. Mitigation would reduce visual intrusion of construction activities and equipment, so as to result in a short-term, minor adverse effect on scenic quality.</p> <p>The visual impacts from temporary demolition and construction impacts from restoring the Ocean Outlet and Tunnel approximately every 25 years would be similar to those described for initial demolition of the existing structure and construction of the rehabilitated Ocean Outlet.</p>	<p>Tunnel Alignment Alternative visual resource impacts (construction activities, lighting, and permanent structures) would contribute to visual change in the landscape, particularly related to construction activities at the Fort Funston staging area. With mitigation, changes would not appreciably alter important landscape characteristics, and views would change only slightly, so as to result in short-term, minor, adverse effect on scenic quality.</p> <p>Impacts to visual character and views from restoring the Ocean Outlet and Tunnel as well as restoring the abandoned, existing Ocean Outlet would be moderate, site-specific, long-term, and, thus, greater than the proposed Project.</p>	<p>Like the Project, changes would not appreciably alter important landscape characteristics, and views would change only slightly, so as not to negatively affect scenic quality. Thus, there would be a short-term, minor, adverse effect on scenic quality after mitigation.</p>	<p>Under the No Project/No Action alternative, no physical component of the proposed Project would be constructed, and there would be no impacts to aesthetic resources. Ongoing periodic maintenance activities would not be noticeable or intrude on the visual character and quality of the Project area.</p>
Air Quality	<p>Construction emissions of NOx, ROG, and PM2.5 are estimated to be well under the annual de minimis threshold levels applicable to the Project area. The Project therefore would be exempt from General Conformity determination requirements and would have a minor adverse impact on air quality.</p>	<p>The Tunnel Alignment Alternative would require a reduced volume of materials to be off-hauled as compared to the Project, which would reduce the number of truck trips required and their associated emissions. Consequently, construction emissions would be well under annual de minimis threshold levels applicable to the SFBAAB, and have a minor adverse impact on air quality.</p>	<p>The Canal configuration Alternative would not construct the collection box and box culvert, which would result in a reduced duration of construction activity. Also, truck transport of 40,000 cubic yards of excavated materials and clean fill would no longer be needed as would be needed for the proposed Project. Consequently, construction emissions would be well under annual de minimis threshold levels applicable to the SFBAAB, and have a minor adverse impact on air quality.</p>	<p>Because no new construction would occur under the No Project/No Action Alternative, no construction emissions would be generated by this alternative.</p>

**TABLE ES-2 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER NEPA**

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Vegetation	<p><i>Construction</i> Project construction would have short-term, minor adverse impacts on vegetation communities within the Project site. Adverse effects on vegetation would be mitigated through avoidance, minimization, and mitigation measures.</p> <p><i>Operation</i> Project-related lake level increase would have effects on vegetation surrounding Lake Merced that would be measurable or perceptible in elevation at which certain communities are present, but localized in context of the vegetation communities as a whole which surround the lake. Following mitigation, all impacts would be minor, but long-term.</p>	<p><i>Construction</i> Impacts on sensitive natural community plant populations within the Project site are expected to be at most moderate and short-term, and would be minimized with mitigation.</p> <p><i>Operation</i> Same as for the proposed Project.</p>	<p><i>Construction</i> Impacts to vegetation communities within the Project site would be at most minor and short-term, and would be reduced with mitigation.</p> <p><i>Operation</i> Same as for the proposed Project.</p>	<p>With this alternative, there would be no change to vegetation in the study area. Also, the beneficial effects of implementation of the Project or Alternatives on the biological resources of the watershed, resulting from increases to open water habitat under the Project or Alternatives, would not occur.</p>
Potential Federally Jurisdictional Wetlands and Other Waters and Riparian Habitat	<p><i>Construction</i> Moderate temporary permanent impacts to potential federally jurisdictional wetlands and other waters and to riparian habitat would occur as a result of construction of the Lake Merced outlet structure in Impound Lake and installation of the new facilities within the Canal. Temporary impacts would be restored to pre-project conditions.</p> <p>Unavoidable permanent impacts to potentially jurisdictional other waters would include 1,350 linear feet of replacement associated with modifications to the Canal, Unavoidable permanent adverse impacts would be mitigated by on-site or off-site creation, restoration, or enhancement of previously lost or degraded waters, wetlands, and/or riparian habitats, or payment to a mitigation bank for in-kind credits.</p>	<p><i>Construction</i> Same as for the proposed Project.</p> <p><i>Operation</i> Same as for the proposed Project.</p>	<p><i>Construction</i> Moderate temporary permanent impacts to potential federally jurisdictional wetlands and other waters and to riparian habitat would occur as a result of construction of the Lake Merced outlet structure in Impound Lake and installation of the new facilities within the Canal. Temporary impacts would be restored to pre-project conditions.</p> <p>Unavoidable permanent impacts to potentially jurisdictional other waters would include 350 linear feet of replacement associated with modifications to the Canal, Unavoidable permanent adverse impacts would be mitigated as described for the proposed Project.</p> <p><i>Operation</i> Operational impacts related to increasing the water level at Lake Merced would be as described for the proposed Project.</p>	<p>With the No Project/No Action Alternative there would be no change to jurisdictional wetlands or other waters in the study area. Also, the beneficial effects of implementation of the Project or Alternatives on the biological resources of the watershed, resulting from increases to open water habitat under the Project or Alternatives, would not occur.</p>

TABLE ES-2 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER NEPA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Potential Federally Jurisdictional Wetlands and Other Waters and Riparian Habitat (cont.)	<p><i>Operation</i></p> <p>Project operations would have minor, long-term effects on wetlands resulting from increasing the water level at Lake Merced above existing conditions to a target WSE of 7.5 to 9.5 feet City Datum.</p> <p>Impacts associated with the periodic removal of the protruding tunnel and outlet and reconstruction of the outlet would be moderate and require similar methods described under construction for the proposed Project.</p>			
Terrestrial Wildlife and Aquatic Wildlife	<p><i>Construction</i></p> <p>Adverse impacts on common terrestrial wildlife are expected and include temporary disturbance of habitat or perhaps the loss of a limited number of individuals of a common species. With mitigation, adverse impacts on common terrestrial and aquatic wildlife would be minor and short-term.</p> <p><i>Operation</i></p> <p>There would be negligible or minor effects on terrestrial wildlife and aquatic habitat resulting from operation of the Project. Beneficial effects on aquatic habitat would likely occur as a result of the increased water volume available to Lake Merced fish species and the maintenance or improvement of water quality.</p>	<p><i>Construction</i></p> <p>Same as for the proposed Project or Canal Configuration Alternative.</p> <p><i>Operation</i></p> <p>Same as for the proposed Project or Canal Configuration Alternative.</p>	<p><i>Construction</i></p> <p>Impacts to terrestrial wildlife and aquatic wildlife would be at most minor and short-term, and would be reduced with mitigation.</p> <p><i>Operation</i></p> <p>The alternative would offer less habitat for local wildlife due to the smaller size of the treatment capacity of the wetland cell compared to the Project; however, the increase in open waters of Lake Merced resulting from implementation of this alternative would be similar to the proposed Project.</p>	<p>With the No Project/No Action Alternative there would be no change to terrestrial wildlife and aquatic wildlife in the study area. Also, the beneficial effects of implementation of the Project or Alternatives on the biological resources of the watershed, resulting from increases to open water habitat under the Project or Alternatives, would not occur.</p>

**TABLE ES-2 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER NEPA**

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Special-Status Species	<p><i>Construction</i></p> <p>Impacts to special-status species such as the Northern coastal scrub communities, Western pond turtles, and various resident and migratory birds would be detectable, but they would not be expected to be outside the natural range of variability of species' populations, their habitats, or the natural processes sustaining them. Adverse effects would be short term and minor, and would be avoided, minimized, or offset by mitigation.</p> <p><i>Operation</i></p> <p>Rising water levels in Lake Merced resulting from operation of the Project would have minor short-term and long-term effects on special-status plants and animal species in the study area.</p>	<p><i>Construction</i></p> <p>Like the Project, impacts to special-status plant communities and wildlife would be detectable, but they would not be expected to be outside the natural range of variability of species' populations, their habitats, or the natural processes sustaining them. Adverse effects would be reduced with mitigation. Effects would be at most minor and short-term.</p> <p><i>Operation</i></p> <p>Same as for the proposed Project.</p>	<p><i>Construction</i></p> <p>Impacts on special-status species would be at most minor and short-term, and would be reduced with mitigation.</p> <p>Like the Project, impacts to special-status species would be detectable, but they would not be expected to be outside the natural range of variability of species' populations, their habitats, or the natural processes sustaining them.</p> <p><i>Operation</i></p> <p>Same as for the proposed Project.</p>	<p>With the No Project/No Action Alternative there would be no change to special-status plants and animals in the study area. Also, the beneficial effects of implementation of the Project or Alternatives on the biological resources of the watershed, resulting from increases to open water habitat under the Project or Alternatives, would not occur.</p>
Cultural Resources	<p>The Project would have a major adverse impact on a historic property (the Vista Grande Canal and Tunnel), even with mitigation.</p> <p>Construction activities could result in a minor to major impact by modifying or altering previously unknown archaeological resources, but the impact would be reduced with mitigation.</p> <p>Impacts to known archeological resources, including the Neptune shipwreck, would be negligible after mitigation.</p>	<p>The Canal improvements under the proposed Project paired with the Tunnel Alignment Alternative would adversely affect approximately 69 percent of the Vista Grande Canal and Tunnel system as a whole. The Canal Configuration Alternative paired with the Tunnel Alignment Alternative would adversely affect approximately 61 percent of the Vista Grande Canal and Tunnel as a whole.</p> <p>The Ocean Outlet structure associated with the Tunnel Alignment Alternative could be closer to the wreckage of the schooner Neptune than the proposed Project.</p> <p>This alternative would have the same adverse effect determinations as the proposed Project.</p>	<p>The Tunnel improvements under the proposed Project paired with the Canal Configuration Alternative would have an adverse impact on 53 percent of the Vista Grande Canal and Tunnel system as a whole. The Canal Configuration Alternative paired with the Tunnel Alignment Alternative would adversely affect approximately 61 percent of the Vista Grande Canal and Tunnel as a whole.</p> <p>This alternative would have the same adverse effect determinations as the proposed Project.</p>	<p>Under the No Project/No Action alternative, no physical component of the proposed Project would be constructed and the Vista Grande Canal and Tunnel would be retained. Therefore, no impact on historical resources and archeological resources would occur.</p>

TABLE ES-2 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER NEPA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Geology and Soils	<p>Construction activities would result in exposing areas of loose soil that could be subject to erosion by wind and stormwater runoff, but after mitigation the Project would have minor adverse effects on soil erosion.</p> <p>The Project also has a potential for liquefaction and lateral spreading to occur during seismic events. After mitigation, adverse effects from seismic events would be minor.</p> <p>Furthermore, the potential for landslides in the Project area is relatively high. However, with mitigation, the adverse effects from landslides would be minor.</p>	Same as for the proposed Project.	Same as for the proposed Project.	Under this alternative the Project site would continue to experience existing levels of geologic and seismic hazards.
Greenhouse Gas Emissions and Climate Change	<p>The Project would have a minor adverse impact with regard to construction related GHG emissions. Operational GHG emissions would be negligible.</p>	<p>The Tunnel Alignment Alternative would require a reduced volume of materials to be off-hauled as compared to the Project, which would reduce the number of truck trips required and their associated emissions.</p> <p>Like the Project, this alternative would have a minor adverse impact with regard to GHG emissions during construction, and a negligible impact during operation and maintenance.</p>	<p>Construction emissions under this alternative would be reduced compared to the Project because of the reduced amount of excavation and construction associated with the elimination of the collection box and box culvert.</p> <p>Like the Project, this alternative would have a minor adverse impact with regard to GHG emissions during construction, and a negligible impact during operation and maintenance.</p>	<p>Because no new construction would occur under this alternative, no construction-related GHG emissions would be generated by this alternative, and no changes to existing GHG emissions associated with operation and maintenance activities. Short-term increases in GHG emissions would result from occasional emergency repairs and other activities that would occur during canal flooding.</p>
Hazards and Hazardous Materials	<p>The Project would result in minor adverse effects on public safety after adhering to hazardous materials and stormwater regulations and the NPDES Construction Permit.</p> <p>Following mitigation, safety risks from encountering unexploded ordnance (UXO) and threats to the public from impeding emergency access, including the Fort Funston area and the evacuation route on John Muir Drive, would be minor.</p>	<p>This alternative would result in minor adverse effects on public safety after adhering to hazardous materials and stormwater regulations and the NPDES Construction Permit.</p> <p>Following mitigation, safety risks from encountering UXO would be minor.</p>	<p>This alternative would result in minor adverse effects on public safety after adhering to hazardous materials and stormwater regulations and the NPDES Construction Permit.</p> <p>Similar to the Project, potential human exposure to vector-borne diseases and threats to the public from impeding emergency access, including the evacuation route on John Muir Drive, would be minor.</p>	<p>Under this alternative the Project would not be implemented; therefore, no hazards or hazardous materials-related impacts would occur. The Project site would continue to experience existing levels of public safety hazards.</p>

TABLE ES-2 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER NEPA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Hydrology and Water Quality	<p>Construction of the Lake Merced outlet structure on the bank and within waters of Impound Lake and the Lake Merced overflow structure in South Lake could result in discharges of pollutants (sediment) to Lake Merced directly. With implementation of mitigation, Project construction would result in short-term, minor effects to water quality.</p> <p>Also, the proposed Project could result in an adverse effect related to alterations of coastal landforms and coastal processes and could conflict with California Coastal Act Sections 30235 and 30253, even after implementation of mitigation. Following mitigation, the impact could remain moderate to major.</p>	<p>Under this alternative, a new tunnel would be constructed to meet the terminus of the existing tunnel at the current extent of the bluff face. As the bluff recedes, both the existing abandoned-in-place tunnel and the new tunnel would become exposed, resulting in an adverse effect related to alterations of coastal landforms and coastal processes. Also, the exposure and rehabilitation of structures under this alternative could conflict with the California Coastal Act Section 30235 and 30253, even after implementation of mitigation. Following mitigation, the impact could remain moderate to major.</p>	<p>As with the proposed Project, construction of the Lake Merced overflow structure in South Lake and the outlet structure on the bank and within waters of Impound Lake could result in discharges of pollutants to Lake Merced directly. With mitigation, construction of the alternative would result in minor adverse effects.</p>	<p>Under the No Project/No Action Alternative, the Project would not be implemented; therefore, no adverse effects on water quality, from altering coastal processes, or from conflicting with plans, policies, or regulations would occur.</p>
Land Use and Planning	<p>The Project would have short-term, minor effects on existing land uses at Fort Funston due to the presence of construction activities in an area used primarily for public recreation. During operation and maintenance, the Project could conflict with the Coastal Act and/or NPS Management Policies related to coastal processes resulting in a moderate to major impact.</p>	<p>Construction of the Tunnel Alignment Alternative would have short-term, minor effects on existing land uses at Fort Funston due to the presence of construction activities in an area used primarily for public recreation. During operation and maintenance, the Project could conflict with the Coastal Act and/or NPS Management Policies related to coastal processes and siting development in areas previously disturbed, resulting in a moderate to major impact.</p>	<p>Same as for the proposed Project or Tunnel Alignment Alternative, depending on the tunnel component selected.</p>	<p>Under this alternative, no physical component of the Project would be constructed. Therefore, there would be no change in land use and no impact to existing land use uses or conflicts with applicable land use plans, policies or regulations.</p>
Noise and Vibration	<p>Noise impacts associated with construction-related activities would result in a short-term, minor adverse impact, and would be reduced with mitigation.</p> <p>After mitigation, vibration impacts associated with construction-related activities, such as at the Missile Assembly Building, would result in a short-term minor adverse impact.</p> <p>Noise impacts associated with operation-related activities would result in a negligible impact.</p>	<p>Like the Project, the Tunnel Alignment Alternative would have a short-term, minor adverse impact with respect to construction noise, and would be reduced with mitigation.</p> <p>Construction vibration impacts and noise impacts associated with operation-related activities from this alternative would have the same impact determination as the proposed Project.</p>	<p>This alternative would have a short-term, minor adverse impact with respect to construction noise.</p> <p>After mitigation, vibration impacts associated with construction-related activities would remain as a short-term, major adverse impact.</p> <p>Noise impacts associated with operation-related activities from this alternative would have the same impact determination as the proposed Project.</p>	<p>Because no new construction would occur under this alternative, no construction noise or ground-borne vibration would be generated by this alternative, which would result in no impact. Noise generated by the operation and maintenance of these components would not change.</p>

TABLE ES-2 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER NEPA

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Geologic and Paleontological Resources	<p>The loss of up to 16,000 cubic feet of soils within the Colma and Merced Formations would be negligible to minor.</p> <p>After mitigation, the inadvertent discovery of a paleontological resource would result in a negligible impact.</p>	<p>The loss of up to 20,000 cubic feet of soils within the Colma and Merced Formations would be negligible to minor.</p> <p>Paleontological resources impacts would be the same as for the proposed Project.</p>	Same as for the proposed Project.	Under the No Project/No Action alternative, no physical component of the proposed Project would be constructed and the Vista Grande Canal and Tunnel would be retained. Therefore, no impact to geologic and paleontological resources would occur.
Recreation	<p>Due to construction activities, the Project would affect a small area (less than 5 percent) of Fort Funston, and would result in short-term, moderate adverse impacts to recreation at Fort Funston.</p> <p>Operation of the Project would result in long-term, minor beneficial impacts to recreation associated with improved beach access provided by the rehabilitated Ocean Outlet structure.</p>	Like the Project, the Tunnel Alignment Alternative would result in short-term, moderate adverse impacts to recreation associated with construction and long-term, minor beneficial impacts to recreation associated with improved beach access provided by the rehabilitated Ocean Outlet structure.	Like the Project, the Canal Configuration Alternative would result in short-term, minor adverse impacts to recreation.	Under this alternative, no physical component of the proposed Project would be constructed, and there would be no impact to recreation.
Environmental Justice	Given the limited nature of construction-related impacts in terms of both duration and intensity, any disproportionate adverse effect on a minority population would be negligible. Furthermore, disproportionate adverse effects on minority populations associated with odors or mosquitoes would be negligible.	Same as for the proposed Project.	Same as for the proposed Project.	Under this alternative, the Project would not be constructed. Therefore, there would be no beneficial effect on minority populations from improved conditions due to reduced flooding and no disproportionate adverse effects on minority populations associated with temporary construction impacts or with odors or mosquitoes due to wetland creation.
Socioeconomics	Any adverse or beneficial socioeconomic effects resulting from reduced flooding due to Project improvements would be minor	Same as for the proposed Project.	Same as for the proposed Project.	Under this alternative, the Project would not be constructed. Therefore, there would be no adverse or beneficial socioeconomic effects as a result of reduced flooding.

**TABLE ES-2 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES UNDER NEPA**

Impact	Proposed Project	Tunnel Alignment Alternative	Canal Configuration Alternative	No Project/No Action Alternative
Transportation and Traffic	With mitigation, the Project would have short-term, minor effects on regional roads, and short-term, moderate effects on local roads. The Project would have short-term, minor effects on access and negligible effects on parking.	With mitigation, the Tunnel Alignment Alternative would have short-term, minor effects on regional roads, and short-term, moderate effects on local roads.	With mitigation, the Canal Configuration Alternative would have short-term, minor effects on regional roads, and short-term, moderate effects on local roads.	Under this alternative, no physical component of the proposed Project would be constructed, and there would be no construction-related impacts to existing transportation conditions on area roadways. However, maintenance activities would continue as well as occasional emergency repairs and other traffic-generating activities when the canal floods.